DESIGN INTERVENTIONS: REVEALING, INITIATING, AND SUSTAINING COMMUNITIES OF DESIGN PRACTICE WITHIN ORGANISATIONS

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Abstract

This research explores and investigates the impact of new design practices within an organisational setting. The research follows a series of design interventions initiated within two for-profit organisations by adopting a participant observation approach and a case study structure. The interventions took the form of design-led workshops, the creation of artefacts, and conversations. Qualitative data as to the impact and the perception of the interventions was gathered over a two-year period, focusing upon examples of existing, introduced and emergent design practices. The data was analysed by applying a framework of 'communities of design practice', developed from Wenger's (1998) theory of communities of practice, and focusing on the themes of engagement, design attitude and alignment to organisational aims.

This research establishes that communities of design practice is a valid framework for inquiry into and analysis of organisational design culture. Use of the framework enables understanding of how and why new design practices are impactful and can lead to organisational change. This research also establishes that communities of design practice have a number of key characteristics: creating artefacts is key to engagement; sensemaking, as a design practice, can be engaged in by non-designers; design attitude may extend beyond expert designers; and, aligning design practices to organisational aims may be opportunistic rather than strategic. Further, this research establishes that communities of design practice have additional infrastructure needs: a design vocabulary; design champions; and design space. Finally, this research considers the provocative and critical role played by external designers introducing new design practices through design interventions.

This research has multiple contributions to knowledge including: the development of a framework for understanding organisational design culture; an in-depth study of the development of new design practices in organisations other than by expert designers; and a model of practice that may help other researchers and practitioners engaging in design interventions within organisations.

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I must thank my supervision team for helping me in their different ways. Andy Tennant helped me make my decision to swap the law for design and then became my mentor during the masters course, before later becoming a friend and collaborator. Paul Rodgers fought for this research study to go ahead and provoked me to keep inquiring further. A special thank you goes to Joyce Yee for helping me to make sense of everything and for getting me over the line.

This type of research could not take place without participants and so I am indebted to both of the case study organisations and their members for their openness, interest and patience.

My most heartfelt thanks are reserved for my family who allowed me to go on this adventure and travelled parts of it with me. My children Jemima and Barnaby reminded me how lucky I was whilst my wife Sarah believed in me even when I didn’t. Thank you.

Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas and contributions from the work of others.

Any ethical clearance for the research presented in this thesis has been approved. Approval has been sought and granted by the Faculty Ethics Committee on 29th July 2014 and 10th June 2015.

I declare that the Word Count of this Thesis is 86,763 words

Name:

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Part 1

The purpose of this part of the thesis is to introduce the research study (ch.1), to develop understanding of each of the relevant areas of knowledge and then to propose a methodology intended to generate new knowledge in each of these areas. The relevant areas of knowledge are design practices in organisations (ch.2), design practices and organisational change (ch.3) and external expert designers working within organisations (ch.4). The methodology followed (ch.5) was fundamentally exploratory and opportunistic in nature and so what is described is the evolution of a methodological approach.

Chapter 1

Introduction to the research study

1.1 Introduction

Designers and researchers regularly engage in projects that introduce organisations to new design practices on the compelling premise that design will help them to solve complex problems and become more successful. These assumptions enjoy wide support, not least by bodies such as the UK's Design Council, which regularly reports upon the economic value of design to organisations (Design Council, 2015).

Historically, the questions of *how* and *why* new design practices may be impactful upon organisations have been understood in terms of how design practices may help managers to solve problems and make decisions (Boland and Collopy, 2004). More recently there has been a theoretical leap towards considering how design practices contribute towards organisational design culture which in turn may influence organisational change (Junginger 2006, 2008; Deserti and Rizzo, 2014a, and 2014b). This research seeks to build upon this recent thinking by proposing that the relationship between organisational design culture and organisational change can be better understood by using *communities of design practice* as a framework for inquiry.

This research study follows a series of design interventions initiated by the researcher within two for-profit organisations over a two-year period, adopting a participant-observer approach and a case study structure. As well as seeking to understand the relationships between the new design practices, individuals and the wider organisation, this research study also seeks to understand the relationship between these things and the researcher's own approach which was based upon the practice of collaborative design activism and disruptive design. In this respect the research study adopts an auto-ethnographic approach and a narrative structure.

This thesis adopts several key terms and concepts, some of which have already been referenced in the first three paragraphs above, in order to provide the research study with a clear focus, and to avoid getting lost as the researcher explores and seeks to piece together the relevant areas of knowledge. These key terms are as follows:

Design culture

Design culture is a collection of design practices within an organisation that are present in people, processes and artefacts, and in the relationships between these things.

Design practices

Design practices are courses of action taken by people within an organisation, including members and external expert designers, which involve the creation or development of artefacts in order to tackle organisational issues. These are referred to as *new* design practices when they are either introduced by an external expert designer through a design intervention or emerge from within an organisation as a result of a design intervention.

Communities of design practice

Communities of design practice is a framework developed by the researcher from Wenger's (1998) theory of communities of practice. Wenger's theory is based upon the concept of shared practices as 'the property of a kind of community created over time by the sustained pursuit of a shared enterprise' (p.45). Communities of design practice occur when design practices are shared in order to tackle organisational issues. The term *communities of design practice* is often abbreviated in this thesis to CoDP.

Design interventions

Design interventions take place when an external expert designer introduces new design practices into an organisation with the intention of coming between

members of an organisation and their existing practices.

In this research study, design interventions took the form of initial design-led workshops, intended to introduce and explore new design practices, followed by further design activity including, but not limited to, further workshops.

Impact

Impact is change emerging from within organisations as a result of design interventions, as opposed to top-down change implemented by senior managers. Impact is considered at micro (individuals), macro (organisational practices and aims) and meta (role of design) levels within organisations.

Expert designers

Expert designers working within organisations are recognised, by themselves and by others, as engaging in design practices as part of their role and have usually studied design.

Collaborative design activism

Collaborative design activism occurs when provocative design acts are used to initiate change from within an organisation and there is an interdependent relationship between the activist designer and the organisation.

Disruptive design

Disruptive design occurs when an expert designer intentionally experiments by distorting established design processes and rules.

The explanations offered for these key terms are working definitions proposed by the researcher and it is recognised that in several cases they are contentious. These key terms are discussed in depth in the literature review (ch.2-4).

This chapter aims to set the scene for the research study. It does so by setting out the main research question and the aims of the research (s.1.2), by discussing how these evolved (s.1.3) and by explaining the researcher's motivations for embarking upon this research (s.1.4).

1.2 The research questions and aims of the study

The main research question is as follows:

What is the impact of new design practices within an organisational setting?

Accordingly, in response to this question the aims of this research study are to explore the following issues:

- What role do artefacts play?
- How do members of organisations, respond to new design practices?
- What role does the external expert designer play, in the context of the researcher's own practice?
- How can the impact of new design practices be understood at micro (individuals), macro (organisational practices and aims) and meta (role of design) levels within organisations?
- What conditions are needed for communities of design practice to flourish?
- Is communities of design practice a useful framework for inquiring into the relationship between design practices and organisations?

1.3 Developing the focus of the research

1.3.1 The initial focus of the research

The main research question, regarding the impact of design interventions upon organisations, was not arrived at until the researcher was over a year into this doctoral study. The original focus of the research had been upon understanding the nature of the design practice being carried out by the researcher and his colleagues in the Design Disruption Group ("the DDG"), a group of design researchers and educators at Northumbria University. Their collective design practice was viewed by the researcher as being an intersection of two distinct approaches: collaborative design activism and disruptive design. The common element in these approaches was the creation of provocative artefacts. These design approaches remain relevant to this study and are both explored in Chapter 4.

The literature regarding collaborative design activism, in particular Julier, (2011b) and Kaygan and Julier (2013), suggests that these design approaches are increasingly widely used. More recently Lenskjold et al (2015) have offered further examples of practice however their studies were of a small scale, in terms of both duration and case study size.

The literature regarding disruptive design, in particular Rodgers and Tennant (2012), Celaschi et al (2013) and Galli et al (2014), adopt Christensen's (Christensen, 1997, Christensen et al., 2006) theory of disruptive innovation as their foundation stone and, in the researcher's opinion, requires understanding in a wider design context.

In seeking to describe emerging forms of design practice both of these bodies of literature are, perhaps unsurprisingly, concerned with establishing a theoretical framework. As a result there remain questions as to what the contribution, in terms of value or impact, might be of adopting that particular approach. Whilst Rodgers and Tennant (2012) highlight the potential for these type of design interventions to provoke discussion which may cause organisational change, in particular through changes to policy, it is no more

than potential and is not explored further.

This focus was initially mirrored by the researcher, whose role as an active participant in initial workshops led him to focus upon the characteristics of the design approaches being used and their immediate impact upon the participants. It was not until the researcher carried out follow up interviews with some of the participants from the first initial workshop with an organisation in June 2014, that it became apparent there may be a causal link between these design approaches and changes to organisational practices. In the organisation's case one of the interviewees indicated a readiness to substitute an established method for developing an internal policy document with some of the exploratory design methods used in the initial workshop. A further development in the researcher's thinking took place once he began interviewing members of their senior management who had not participated in any of the design interventions.

During those interviews an important insight emerged. Firstly, the use of design outside of the traditional roles of product development and marketing was not supported by any explicit policies of the organisation - whilst it did occupy other roles it was carried out in a covert manner. Accordingly, the researcher recognised that whilst the impact of the design interventions upon the individuals who participated was important, the wider role of design within the organisation, people's awareness of this role and the attitudes of senior management were also critical. The relationships between these different factors, in particular interdependencies, needed exploring.

1.3.2 Further development through the literature review

The initial literature review undertaken by the researcher revealed a series of theoretical mismatches, blind spots, a lack of empirical studies and opportunities for further inquiry. Importantly, there was also a lack of an overarching framework for inquiring into the relationship between design interventions and organisational change. These issues can be summarised as follows:

- The theoretical models for understanding the role of design in organisations are often static and retrospective (Gorb and Dumas, 1987; Storvang et al, 2014; Kretzschmar, 2003).

- The literature concerning the relationship between design and organisational change is complex: there are unhelpful attempts to meld together design theory and organisational theory (Buchanan, 2008), the prevailing focus is on how design may be managed (Boland et al, 2008) rather than its impact, and there remains a lack of empirical studies.

- There is a reductionist view of design in organisations, based upon proposals for 'design thinking' (Dunne and Martin, 2006; Bauer and Eagen, 2008; Brown, 2009; Martin, 2009), which wrongly marginalises the role of artefacts.

- The 'design attitude' of designers (Michlewski, 2006 and 2008) has only been considered in the context of expert designers and does not extend to other members of organisations engaged in design practices.

- The design approaches adopted by the researcher and the DDG were concerned with causing emergent change and in the researcher's opinion the literature regarding both collective design activism (Julier, 2011b; Lenskjold et al, 2015) and disruptive design (Galli et al, 2014; Celaschi et al, 2013) lack empirical studies and case studies based upon for-profit organisations.

The researcher's initial response to these issues was to view design interventions in the context of organisational design culture. The researcher considered whether organisational design culture may act as the pivot between design interventions and organisational change. However, whilst there is a small and vibrant body of literature in this area (Junginger, 2006; Junginger, 2008a; Junginger and Sangiorgi, 2009; Junginger, 2015; Deserti and Rizzo, 2014a; Deserti and Rizzo 2014b) it lacks relevant empirical studies and only serves as a starting point for further research.

The researcher's next response was to consider deconstructing all of the relevant elements – including design interventions, design approaches and organisational structures – and instead focus upon what people were doing and the relationship between things. This led the researcher to consider the relevance of practice theory and its application to design practices (Kimbell and Street, 2009; Julier, 2007). By understanding design interventions as being a collection of new design practices the researcher was able to understand the design culture of organisations as a series of collections of existing design practices. The need to make sense of these collections of design practices led the researcher to Wenger's (1998) theory of 'communities of practice'. The researcher argues that, by applying Wenger's theory to design practices, *communities of design practice* offers a dynamic framework for inquiring into the impact of design interventions on organisational change. Communities of design practice are referred to throughout this thesis as CoDP.

1.4 Motivation for conducting the research

1.4.1 Introduction

The researcher's position is that of a relative newcomer to formal design education, design practice and design research. The researcher was inspired to carry out this research study by a number of key experiences which included his earlier career as a lawyer, a short, sharp design education and a feeling of frustration at the lack of research about exploratory design interventions.

1.4.2 Life as a lawyer

For seventeen years the researcher was a practicing lawyer, specialising in commercial disputes, including intellectual property disputes. During that time the researcher gained a number of insights regarding interventions into organisations through acting as the external legal expert.

As a lawyer the researcher acted mainly for organisations, rather than individuals, who were seeking to either pursue or defend a legal dispute. These organisations were seeking initial advice which was often followed by representation, including representation in court proceedings. These relationships were sometimes brief, with the organisation choosing to take its own action upon the initial advice, but in most cases the researcher continued to advise each organisation for months and years. The success of these relationships was primarily built on the researcher developing a trusting relationship with key individuals within the organisation. Other factors included the organisations' ability to act upon the researcher's advice, in terms of decision making and resources, and senior management's experience of using legal services. Whilst not identical, these factors are similar to those of trust, capacity for change and leadership, identified by the literature discussed in Chapter 2, in particular (Yee and White, 2016; Warwick, 2015) as being key to design influencing organisational change.

1.4.3 Design education

The researcher's decision to change career was born out of a lack of fulfilment with being a lawyer. The researcher spent almost all of his spare time designing and making things - furniture, property interiors, gardens and gadgets for bicycles - and was much more interested in those activities. As a result the researcher enrolled on a one year masters course in industrial design at Northumbria University. Whilst the researcher quickly became competent at the technical aspects of the course, including sketching, computer aided design and digital publishing software, his main interest was in working with groups of people, designing with them to create new artefacts.

This collaborative approach manifested itself in two projects. In the first project the researcher worked with a local charity who provide care and education support to disabled people and their families. The researcher ran a series of design workshops with a group of disabled children, considering what wheelchairs might be like in the future. In the second project the researcher worked with a local business who specialised in the manufacture of custom made pre-cast concrete and cast stone products. One of their product lines was street furniture which included a series of benches whose simple shapes had been dictated by the ease with which casting moulds could be made. In that case the researcher ran a series of design workshops with a group of senior managers, considering alternative forms new street furniture. In both projects the researcher used a method he had developed himself, introducing the participants to multiple images to create prototype drawings based upon groups of selected images.

On reflection, the researcher strongly identifies with the 'disruptive designer' suggested by Celaschi et al (2013). Celaschi et al draw from their own experience of teaching postgraduate design studies a practitioner who has experienced a short but intense design education and as a result has become an experimenter playing with design methods and process. This is discussed further in Chapter 4.

1.4.4 Likeminded practitioners

Towards the end of the masters course the researcher became aware of the Design Disruption Group ("the DDG"), a group of educators, researchers and practitioners founded in 2009 within the Design School at Northumbria. This awareness began with the researcher taking part in a project organised by DDG members (Space 2: Sell pop-up shop project, 2012) which involved intervening in the day to day business of a local YMCA charity by engaging them in a pop-up shop project. The researcher made an object that was sold in the shop and attended the opening night. At the time the researcher enjoyed the experience and observed that the intervention did appear to have introduced the charity to a potential new way of working. However, other than a few anecdotes there was no data collected to validate this or to consider what the long-term impact on the organisation had been.

The DDG's activities at that time included acts of design activism and facilitating design-led workshops. The workshops involved getting participants who were not expert designers to undertake creative design-led tasks: designing and making artefacts and then reflecting upon them. The literature written by the DDG at that time consisted of a number of conference papers (Rodgers et al, 2011; Rodgers et al, 2012; Rodgers and Tennant, 2012; Rodgers et al, 2013) however it was only the latter two of those papers that described their activities in detail.

Rodgers and Tennant (2012) and Rodgers et al (2013) consider the impact of these workshops, which they describe as 'interventions' and as forms of 'design activism' and 'disruptive design', in the context of a series of case studies with local charities and local businesses. They describe the aims of these workshops, in a health and social care context, as follows:

> The main aim of the disruptive design workshops is to break the cycle of well-formed opinions, strategies, mindsets, and ways-of-doing, that tend to remain unchallenged in the health and social care of vulnerable individuals in the UK… A disruptive design approach encourages the development of richer, more varied solutions to everyday issues by emphasising fun (Bisson and Luckner, 1996) "safe failure", and doing things in ways that one wouldn't normally do … the emphasis is placed on having fun, relaxing, and trying things out in a stress free environment where

> participants are encouraged to fail fast and fail often without fear.
> (Rodgers and Tennant, 2012, p.46)

Whist this literature arguably described an interesting area of emerging design practice, the findings, which are discussed in more detail in Chapter 4, are limited to the authors' observations. On becoming a member of the DDG in the summer of 2013 the researcher was encouraged to begin inquiring into the experience of the participants and the impact upon their organisations

1.5 Summary

The researcher has established that this is a complex area of research requiring an understanding of several different areas of design and organisational theory. Further, in order to make sense of the aims of the research study, an overarching framework is required: in this respect the researcher proposes communities of design practice (CoDP) based upon Wenger's (1998) theory of communities of practice.

In order to address these different areas of theory the literature review that follows consists of three chapters. These are concerned with understanding design practices in an organisational context (ch.2), the relationship between design practices and organisational change (ch.3), and impact of the particular design approaches used by the researcher, acting as the external expert designer, including collaborative design activism and disruptive design (ch.4).

Further, the researcher has established *why* the research study took place in terms of his own motivation. The question of *how* the research was undertaken is discussed in the methodology chapter (ch.5).

Chapter 2

Design practices in organisations

2.1 Introduction

In this research study ‘new’ design practices encompass both design practices that are introduced to an organisation by an external expert designer, through a design intervention, and design practices that may emerge from within the organisation because of that intervention. It is also recognised by the researcher that, in order to understand new design practices, design practices that already exist within the organisation must also be understood.

In order to understand the impact of new design practices upon organisations this chapter explores the following working definition of design practices:

Design practices consisting of courses of action taken by members of an organisation which involve the creation or development of an artefact or artefacts in order to tackle organisational issues.

This is intended to represent what the researcher considers to be key aspects of design practices in an organisational setting. This enables, firstly, the relevant literature to be discussed in this chapter and, secondly, a structured approach to be taken to the inquiry into the two case study organisations.

Accordingly, this chapter discusses literature concerned with the following:

- The relevance of practice theory to design and how it may be useful for inquiring into design practices (s.2.2).

- The importance of artefacts to design practices (s.2.3).

- Who designs in organisations including, but not limited to, expert

designers (s.2.4).

- Where design is situated in organisations and what this means in terms of where and how the impact of new design practices may be understood (s.2.5).

2.2 The relevance of practice theory to design

2.2.1 Practice theory

The decision to focus upon ‘design practices’ is a conscious and deliberate one. The term ‘design practices’ is not to be confused with ‘design practice’ which is commonly understood to mean activity by expert designers. Rather the researcher considers design practices in the context of established practice theory, in particular the theory proposed by Reckwitz (2002).

Practice theory seeks to understand how people shape the world they live in by focusing upon the relationships between people’s actions, other people and things. As Reckwitz (2002) explains, there are number of competing practice theories, notably Cetina et al (2005), Bourdieu (1990) and Giddens (1984), all of which take different theoretical approaches. The researcher adopts Reckwitz’s approach which seeks to draw out a common body of theory and includes the following definition of practice as:

> a routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge on the form of understanding, know-how, states of emotion and motivational knowledge. (Reckwitz, 2002, p.249)

2.2.2 Practice theory and design

How Reckwitz’s theory of practice translates into a design context has been considered by both Kimbell and Street (2009) and Julier (2007) and it is upon this body of literature that the researcher bases his understanding of design practices.

Kimbell and Street’s (2009, p.1) contribution is to emphasize the aspects of practice theory that are particularly relevant to design and to formulate those aspects into ‘an alternative way of conceiving of design activity’. Their research is founded in a dissatisfaction with the way in which design thinking theory ignores the role played by artefacts.

Kimbell and Street highlight the following aspects of practice theory as being relevant to design:

- The distribution of practices rather than being bound up in individuals.

- Focusing on objects as part of practices to enable a distinction to be made between 'rule-based routines or embodied skills, and a notion of practice that is "more dynamic, creative and constructive (Knorr-Cetina, 2001) (p.187)"' (p.8).

- Knowledge as a feature of interactions between groups rather than something possessed exclusively by individual minds.

Based upon these observations Kimbell and Street propose a pair of theoretical concepts to be used as an analytical tool. These are 'design-as-practice', which is concerned with the work of designing, and 'designs-in-practice', which is concerned with how users and stakeholders subsequently interact with products and services. It is the first of these concepts that is of interest to this research study. Kimbell and Street describe the features of a design-as-practice approach as follows:

> Design-as-practice mobilizes a way of thinking about the work of designing that acknowledges that design practices are habitual, possibly rule-governed, often shared, routinized, conscious or unconscious, and that they are embodied and situated. Design-as-practice cannot conceive of designing (the verb) without the artefacts that are created and used by the bodies and minds of people doing design. This way of thinking of design sees it as a situated and distributed accomplishment in which a number of things, people, and their doings and sayings, are implicated. As with strategy-as-practice in organization studies (Whittington 1996), conceiving of design-as-practice offers rich resources for understanding what goes on during design activities and relating them to organizational outcomes. It moves the unit of analysis and thus the research agenda away from oppositions between individual skill or knowing (eg Cross 2006), or organizational competence (eg Kelley 2001) to an arena which acknowledges the practices and discourses which span both. Design-as-practice avoids the problem in accounts of design that see it as a rational problem-solving activity (eg Simon 1969) or something concerned with expandable rationality (Hatchuel 2001). It acknowledges the work done by professional designers in their practices, but also opens up design to others, such as managers and employees in organizations during design

> processes, and also customers, end-users and other stakeholders who through their practices also take part in design.
> (Kimbell and Street, 2009, pp.10-11)

This extract has been reproduced in full as the researcher places considerable importance on the approach it proposes as a way of thinking about design practices in an organisational setting.

Julier's (2007) main focus is on how a practice theory approach can be used to understand the relationship between users and objects – what Kimbell and Street refer to as 'designs-in-practice'. However, Julier also makes the following proposals (at p.48) as to the potential benefits of a practice theory approach that are relevant to this research study:

- it can be used to map and evaluate 'the significance of the objects that designers develop';

- it can be used to analyse 'the connections between different clusters of related activities'; and

- design interventions can be conceived as a 'process of destabilizing [the activities'] relationships, mediating their conflicts or achieving more harmonized, efficient dependencies between them'.

Accordingly the researcher considers the approaches argued for by Kimbell and Street (2009) and Julier (2007) to be directly relevant to this research study both in terms of understanding what the design practices are and how and why they cause impact.

2.3 The importance of artefacts to design practices

The researcher's own view is that creating artefacts is an essential component of design activity and that artefacts are important tools in understanding the world. As such the researcher shares the views articulated by Archer that:

> [Design is] the collected body of experience of the material culture, and the collected body of experience, skill and understanding embodied in the arts of planning, inventing, making and doing.
> (Royal College of Art, 1979)

The researcher also places importance upon Richter and Allert's argument that:

> Rather than treating artefacts as mere representations or carriers of information and ideas, they are understood as epistemic instruments capable to frame, explore, catalyse, inquire, but also to probe and assess ideas.
> (Richter and Allert, 2011, p.270)

The researcher's view is entirely subjective in what is a highly contested area of design theory. In particular, recent design theory has promoted a reductionist view of design suggesting that it is possible for design practices to consist only of thinking in the same way as a designer. The researcher argues that this conflicts with actual design activity which continues to place artefacts at the heart of design practices.

This paradox has arisen due to a shift in context for design practices and the reimagining of design practices as a management tool. Manzini (2016) offers a useful summary of the recent design landscape and these transitions:

> the focus of design has shifted away from "objects" (meaning products, services, and systems) and toward "ways of thinking and doing" (meaning methods, tools, approaches, and ... design cultures). In undergoing this shift, design becomes a means to tackle widely differing issues, adopting a human-centered approach: It shifts from traditional, product-oriented design processes to a process for designing solutions to complex and often intractable social, environmental, and even political problems.
> (Manzini, 2016, p.53)

At an academic level this shift was initiated through the notion of 'design

thinking' (Buchanan, 1992) colliding with 'managing as designing' (Boland and Collopy, 2004). Buchanan's (1992) paper entitled 'Wicked Problems in Design Thinking' argues that designers have a unique way of looking at problems and that this way of thinking, 'design thinking', could be applied to human problems outside of the traditional scope of industrial product design. Boland and Collopy (2004) saw this way of thinking, which they described as 'design attitude', being valuable to managers, as an alternative to traditional methods of problem solving and decision making within organisations. The notion of design thinking as a stand-alone form of design practice that could be adopted by management was developed further in a new body of literature encompassing Dunne and Martin (2006), Bauer and Eagan (2008), Brown (2009) and Martin (2009).

The researcher argues that the theory underpinning design thinking is not representative of what designers do. Indeed, many of its proponents' proposals arise out of practices that involve creating artefacts. A good example can be found in Boland and Callopy's (2004) proposals which were based upon their experience of a project with well-known architect Frank Gehry. Central to that project were a series of models made by Gehry which were not prototypes in the traditional architectural sense but were, as Gehry explained, 'tools for thinking'.

The researcher prefers a different body of literature regarding design practices: one that focuses upon the way in which expert designers think about problems rather than the application of design methods as a management tool. This earlier body of literature (Cross, 1986; Cross, 2006; Schön, 1983; Rowe, 1991; Lawson, 2006; Dorst, 2006) is concerned with the design ability of individual, usually expert, designers applying abductive thinking to traditional, often product related, design problems. In doing so it places physical artefacts, objects and materials at the heart of design practices.

In the course of exploring 'designerly ways of knowing', Cross (2006) extends Archer's (1979) emphasis on modelling so as to encompass 'objects'. In doing so Cross argues that:

> [Designers] understand what messages objects communicate and they can create new objects which embody new messages.
> (Cross, 2006, p.5)

Lawson's (2006) argument, developing a model of what constitutes design, is equally instructive. Lawson suggests that a key component of design is 'representing', meaning the externalisation of thoughts by drawing, modelling, making and computing. Lawson makes this argument based upon the observation that:

> Designers almost always draw, often paint and frequently construct models and prototypes…. [W]hat is clear is that designers express their ideas and work in a very visual and graphical way.
> (Lawson, 2006, p.13)

What is most important about Cross and Lawson is not their emphasis on creating and using artefacts but their explanations as to how these artefacts are entwined with the thinking processes of designers. Building upon Schon's (1983) work, suggesting a reflective practice by designers, Lawson (2006) argues that 'the very essence of design thinking' is the interaction between 'drawings' and 'ideas', expressed through words. Lawson (2006) gives an example of this interaction in the form of a 'design drawing', explaining that '[s]uch a drawing is done by the designer not to communicate with others but rather as part of the very thinking process itself which we call design' (p.26).

In focusing upon the creation and use of artefacts as a signifier of design practices, the researcher recognises that artefacts may fulfil several different roles both to the individual creator and to the wider organisation.

2.4 Who designs in organisations

2.1.1 Introduction

It is possible to understand Simon's (1969) argument that everyone designs as meaning that everyone within an organisation may be, or may be capable of being, actively engaged in design practices. More problematic, however, is reconciling Papanek's (1972, p.3) subsequent provocation that 'all men are designers'. This research study is interested in the relationships people have with new design practices. Accordingly, factors that are likely to influence these relationships include the level of experience people have of using design practices and how their engagement in design practices is recognised within an organisation. Flatly viewing everyone as a designer is not helpful to such inquiries.

The researcher proposes that the concepts of *expert designers* and the *development of design ability* offer helpful ways of understanding who design in organisations. The issue of how engagement in design practices is recognised is considered later in the context of where design is situated (s.2.5).

2.4.2 Expert designers

The term *expert designer* is given a wide definition in this study to reflect the continuing evolution of design as a professional practice within organisations. In terms of what makes someone who engages in design practices an expert, the researcher adopts Potter's (2006) argument that the dividing line between someone who engages in design practices and the expert, or professional, designer who possesses a specialised skill is usually whether someone has studied design. Potter argues that studying design most commonly takes the form of undergoing a formal design education, through a recognised educational establishment such as a university or design school, but can also include self-training which may rely heavily on patronage and opportunities.

The researcher takes the view that whilst Potter's argument as to what makes an expert designer cannot be definitive, it is a useful starting point and, most importantly, it accords with commonly held views as to who are recognised as expert designers within organisations.

A contemporary view as to where these expert designers are situated amongst others engaged in design practices is provided by Manzini (2016) who suggests three different domains:

> diffuse design, by which we refer to the natural human ability to adopt a design approach, which results from the combination of critical sense, creativity, and practical sense;
>
> expert design, by which we refer to professional designers who should, by definition, be endowed with specific design skills and culture; and
>
> co-design, by which we refer to the overall design process resulting from the interaction of a variety of disciplines and stakeholders—final users and design experts included.
> (Manzini, 2016, p.53)

One of the challenges for this research study is how to refer to these *other* people who are engaged in design practices, either in a diffuse or collaborative manner. The term *non-designer* is too binary and clearly at odds with the widely-held view that everyone is capable of engaging in design practices. Also the term *novice designer* (Ahmed et al, 2003) is unhelpful in this context as it is intended to distinguish between designers who are beginning their professional career and those who are already expert. Accordingly, the researcher argues that the only helpful distinction to be made is whether people are expert designers or they are not.

2.4.3 Development of design ability

The concept of learning by doing, through engaging in new practices, is well established in organisational studies (Arrow, 1971). In a design context Cross (1999, 2006) argues that people engaging in design practices acquire 'design knowledge'. Cross (2006) suggests that designing is a human ability that applies to expert designers and others alike and that this ability can be

positively developed both by taking part in design activity and by receiving instruction in it.

Importantly Cross also argues that this acquisition of design ability may be considered as part of a transformation towards becoming an expert designer. Cross proposes this transformation in the context of a ‘novice designer’:

> A novice undergoes training and education in their chosen field, and then at some later point becomes an expert. The accumulation of experience is a vital part of the transformation to expert.
> (Cross, 2004, p428)

The researcher proposes using this concept of a transformation to consider the impact of design interventions upon individuals, and whether engaging in new design processes encourages a transformative process.

2.5 Where design is situated within organisations

2.5.1 Introduction

As demonstrated by Manzini (2016), the scope of design activity is now wide. Such a wide definition does not help to set parameters for an inquiry into design practices in an organisational setting and so the researcher places significant importance upon the contributions of Gorb and Dumas' (1987) concept of 'silent design' and Kretzschmar's (2003) 'Danish Design Ladder'.

2.5.2 Silent design

The main aim of Gorb and Dumas' three-year research project was to discover where and how design is practiced within organisations by both expert designers and others. The researcher has identified two key issues from their research which are particularly relevant to this research study: firstly, their focus on artefacts as an explicit aspect of design practices and, secondly, their findings relating to what they term 'silent design'.

Gorb and Dumas' (1987) focus on artefacts is influenced by Simon's (1969) focus on man-made things. From this they develop a working definition of design as:

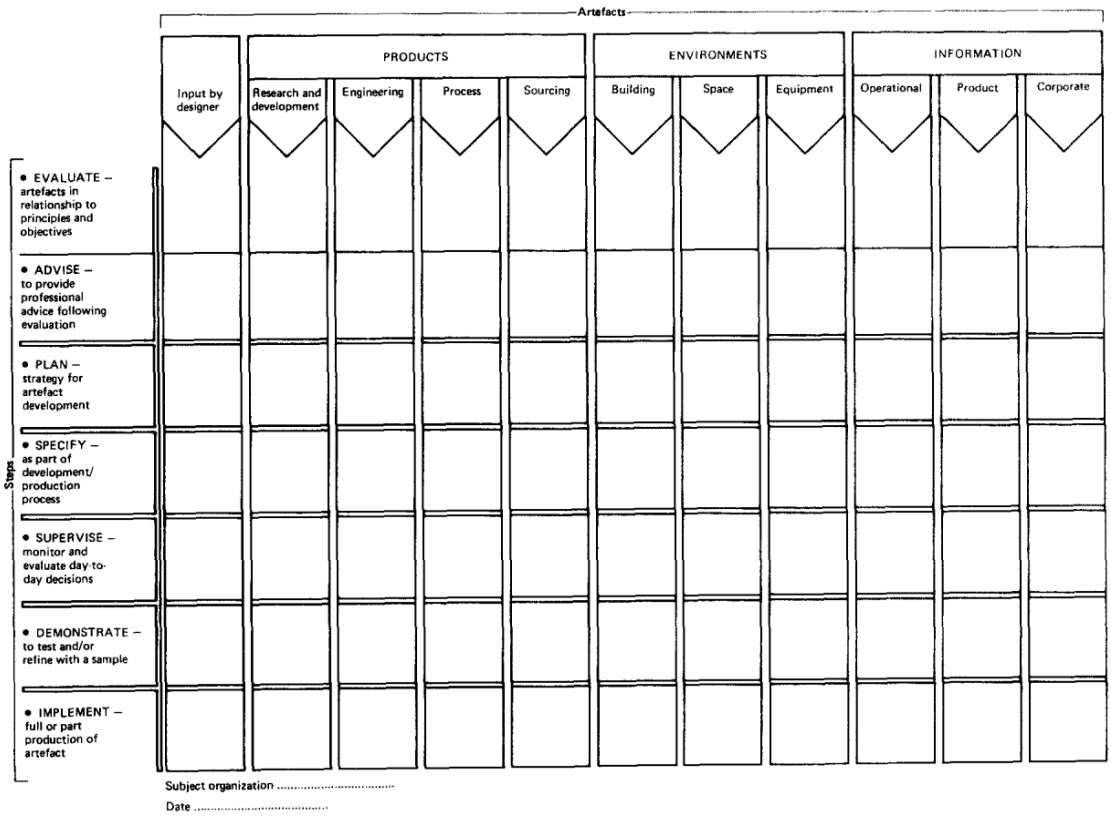
> a course of action for the development of an artefact or system of artefacts; including the series of organisational activities required to achieve that development.
> (Gorb and Dumas, 1987, p.151)

In order to apply this in an organisational setting they create three categories of artefacts: products, environments and information. These categories are then broken down into subcategories which are shown in their Design Matrix diagram (tab. 2.1). Whilst these categories demonstrate how artefacts may help to make design practices explicit within different physical realms of the organisation they are not able to fully anticipate the shift in context that design has undertaken in the subsequent three decades.

The researcher argues that Gorb and Dumas' (1987) categories of 'operational'

and ‘corporate’ information artefacts may be better understood as relating to ‘process’ and ‘strategy’ as suggested by Kretzschmar’s (2003) study of different levels of design within organisations. This is relevant to this research study as it supports the argument that rather than limiting an inquiry to overt design practices carried out by expert designers, an inquiry should instead focus on the artefacts created or used regardless of who is engaged.

Table. 2.1 Design Matrix 1: involvement of steps within artefacts (Gorb and Dumas, 1987, p.154)



Gorb and Dumas’ most significant finding is to identify a covert form of design activity, or design practices, carried out by people within organisations who, unlike expert designers, did not add the words ‘design’ or ‘designer’ to the things they do. They term this activity ‘silent design’. Whilst being consistent with the literature referred to above regarding who designs in organisations, Gorb and Dumas are also successful in prefacing Cross’ (2006) suggestion that people who are not expert designers can acquire design ability or knowledge.

By considering silent design in an organisational setting Gorb and Dumas pose the following questions:

- How widespread is 'silent design'?
- How does silent design relate to overt design where that function exists in an organization?
- Is it productive - are there conflicts and how are they resolved?
- Does the amount of each affect these issues?
- Should silent design be made overt? Is this even possible?
- If not is there an optimum balance?

(Gorb and Dumas, 1987, p.152)

These questions are relevant both to understanding design culture in an organisational setting and the relationship between new and existing design practices. Further, the issue of ‘conflict’ and its resolution is directly relevant to how organisational change is proposed and then implemented.

The concept of silent design has been widely accepted by the academic community, having been cited in other design literature more than two hundred times. However, the subjective nature of Gorb and Dumas’ findings – the concept is based only on findings from their own study - has recently come into question. In particular Lee (2015) argues that it is difficult to apply the concept of silent design in a definitive way. In the researcher’s view Lee’s argument misses the point: Gorb and Dumas are highlighting an area for inquiring into design practices rather than providing a definition. Accordingly, the researcher prefers Chatzakis’ (2017) approach which is to take the concept of silent design and understand it in the context of particular research findings. In Chatzakis’ case this meant recasting silent design practices as ‘obscure practices’ (p.318) as this was a better way of describing the practices engaged in by those people in the case studies who were not recognised as expert designers.

2.5.3 Danish Design Ladder

In a report commissioned by the Danish Government, Kretzschmar (2003) proposes the 'Danish Design Ladder' a model for identifying 'the different levels in which companies adopt design'. The model has since been adopted into many diagrams, however its original text form is the most illuminating:

> Step No. 1: Design is an inconspicuous part of, for instance, product development and performed by members of staff, who are not design professionals. Design solutions are based on the perception of functionality and aesthetics shared by the people involved. The points of view of end-users play very little or no part at all.
>
> Step No. 2 Design as styling. Design is perceived as a final aesthetic finish of a product. In some cases, professional designers may perform the task, but generally other professions are involved.
>
> Step No. 3 Design as process: Design is not a finite part of a process but a work method adopted very early in product development. The design solution is adapted to the task and focused on the end-user and requires a multidisciplinary approach, e.g. involving process technicians, material technologists, marketing and organisational people.
>
> Step No. 4 Design as innovation: The designer collaborates with the owner/management in adopting an innovative approach to all – or substantial parts– of the business foundation. The design process combined with the company vision and future role in the value chain are important elements.
> (Kretzschmar, 2003, p. 28)

This was a large scale study involving the survey of over one thousand companies. The main aim of the study was to establish a correlation between investment in design and outputs, in terms of revenue, exports and employment, which is outside the scope of this research study. However, the four steps or levels of design proposed by Kretzschmar have been widely accepted (Tether, 2005; Design Council, 2013; Heskett and Liu, 2012; Mortati et al, 2014; Storvang et al, 2014) and offer a solid basis on which to consider the role of design within organisations.

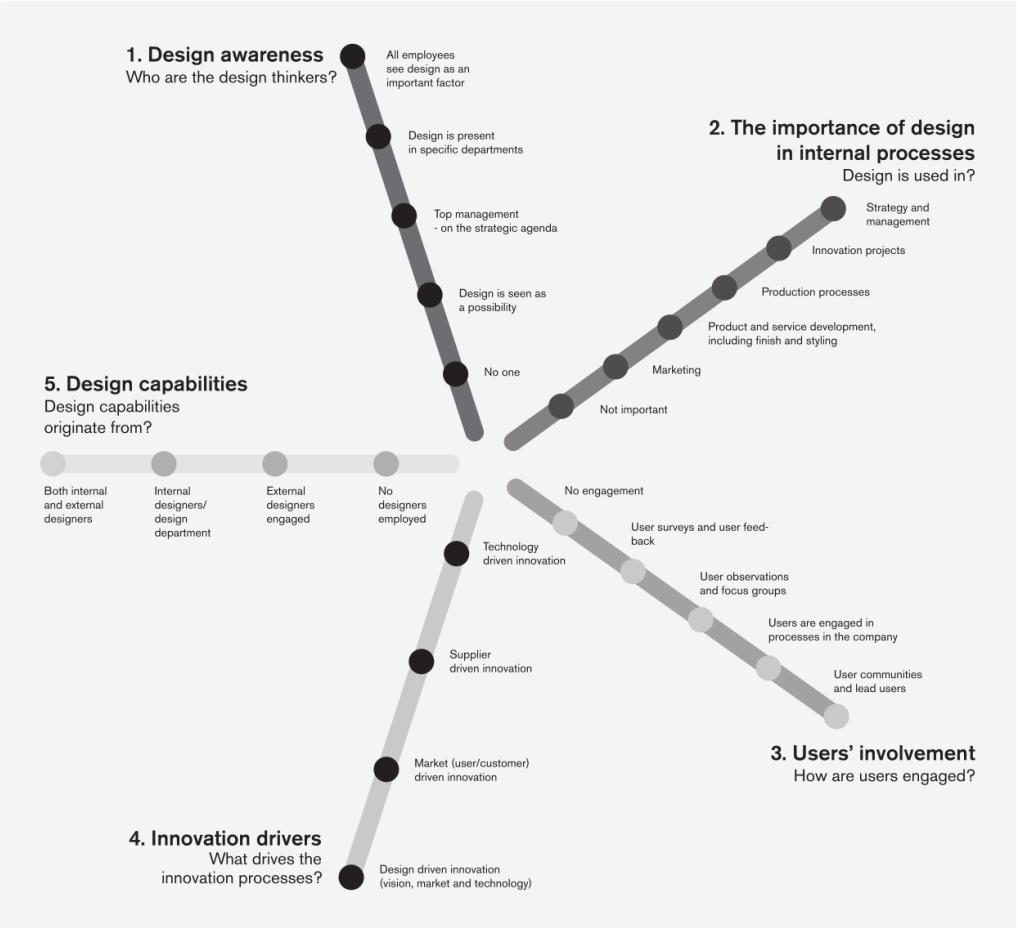


Figure 2.1 Framework for design capacity (Storveng et al, 2015, p.13)

Storvang et al (2015) offer a useful example of this body of literature by building upon the principles of the Danish Design Ladder. Storvang argues that understanding an organisation's design capacity will enable organisations to better use design within the innovation process and offers a detailed framework diagram (fig. 2.1).

Of the five limbs of Storveng's framework diagram, 1. design awareness, 2. the importance of design in internal processes and 5. design capabilities are the most relevant to this research study. The first two of these categories are a direct extrapolation of the Danish design ladder whilst the fifth category makes distinctions between types of designers similar to those made by Gorb and Dumas (1987). This literature is important as it is based both on established design theory and upon large scale empirical studies.

The challenge for this research study is whether these audit type tools have any

use when inquiring into the impact of new design practices. Arguably they do help researchers create a snapshot of the organisation at a given time but are not capable of describing dynamic change. The researcher views the model proposed by Kretzschmar (2003) as being potentially useful as a tool for inquiry and this is discussed further in the methodology (ch.5). However, in relation to Storveng et al (2015) the researcher shares Doherty et al's (2014) view that models of cumulative progress, are not relevant to the introduction of new design practices, where progress may be messy and in different directions.

2.6 Summary

This chapter has established what is known about design practices in organisations and has begun to address some of the aims of this study. In particular:

- By considering design activity in terms of established practice theory, as ‘design practices’, researchers may focus upon the interactions between people and things. It is also suggested that developing a framework to model design practice may be helpful to an inquiry.

- Contrary to the recent trend for ‘design thinking’, artefacts are central to understanding design practices as the interactions between people and artefacts are what constitute design practices.

- Any member of an organisation may be engaged in design practices. Further, the differences between expert designers other members of organisations may be bridged by developing design knowledge through engaging in design practices and by receiving instruction in them.

- Members of organisations engaging in design practices throws open the possibility of design practices that are covert, or silent (Gorb and Dumas, 1987), and unknown to the wider organisation. Such silent design practices may cause conflict that requires resolution.

- Whilst there are models for recording where design practices are situated in organisations they tend to be retrospective audit type tools and suggest that a more dynamic form of inquiry is required.

The following chapter takes this understanding of design practices within organisations and discusses how the impact of the design practices may be understood in terms of organisational change.

Chapter 3

Design practices and organisational change

3.1 Introduction

Having established an understanding of design practices within organisations this chapter discusses how the impact of the design practices may be understood in terms of organisational change.

Buchanan (2008, p.1) argues that there is a need for literature concerning itself with 'a new kind of design research, oriented directly toward the influence of design on organisation life'. This research study shares this concern however it also supports Hobday et al's (2011b) suggestion that rather than seeking to build a bridge between existing forms of design theory and organisational theory, the academic design community should instead focus on developing new design theory to explain the relationship between design and organisations.

This chapter begins by considering how impact is understood in terms of organisational change (s.3.2). This is discussed from an organisational theory perspective, focusing upon the impact of new design practices as a form of emergent change and upon political behaviour within organisations.

Having established an understanding of organisational change that is relevant to this research study, this chapter then considers the literature that discusses the relationship between design practices and organisational change. The researcher's view is that this literature should be considered as three distinct bodies of literature. These bodies of literature represent a chronological transition beginning with a desire to explore how design could be utilised by managers (s.3.3), moving to considering the conditions that influence the relationship between design and organisational change (s.3.4) and finally moving to considering the role of organisational design culture (s.3.5).

In addition to these distinct transitions, further understanding can also be gained by considering a fourth body of literature: the parallel research field concerned with the use of design in the public sector, in particular with the design of public policy. Accordingly, this chapter summarises the relevant literature and seeks to identify issues that have mutual value (s.3.6).

The researcher proposes that the literature encompassed by these transitions falls short of offering a dynamic understanding of the relationship between design practices and organisational change and lacks a comprehensive theoretical model. In response, the researcher builds upon the practice theory approach (discussed in s.2.3) and the emergent body of literature that relates to organisational design culture (s.3.5) by considering Wenger's (1998) theory of communities of practice as a suitable theoretical model for developing a better understanding of the relationship between design practices and organisational change (s.3.7).

3.2 Organisational change theory

This research study is interested in organisational change in terms of changes to how organisations do things (practices) and what they want to do (organisational aims). The relevant literature refers to these variously as processes, policies, strategies and values. For the sake of clarity, the researcher refers to *practices* and *organisational aims*. This macro level change is in addition to micro level change that may be understood through the experiences of individuals and meta level change regarding the role of design.

Both the terms innovation and organisational change are frequently heard in design schools, business schools and industry. The researcher has first-hand experience of the phrases 'we need to innovate' and 'we need to change' in all of these contexts. As to what these terms mean from a design perspective Mortati (2015) is particularly helpful. Mortati uses the Oslo Manual (Mortensen and Bloch, 2005) as a starting point with which to identify the different forms of innovation that might be relevant from a design perspective. These are as follows:

- product innovation – changes in goods and services;
- process innovation – changes in production cycles and distribution;
- *organisational innovation – changes in methods and routines;*
- marketing innovation – changes in product design and packaging, retailing, a and pricing methods.

Of these different forms of innovation it is the third form (italicised by the researcher), of organisational innovation, that concerns this research. Organisational innovation is how an organisation changes itself, in terms of how it does things (practices) and what it wants to do (organisational aims), and is another way of describing organisational change. The researcher adopts this meaning of organisational change unless stated otherwise.

This understanding of organisational change is well aligned with the wider body of organisational change literature. However, the context of this research study is organisational change that occurs when organisations are introduced to new design practices by way of interventions by an external expert designer. This is an important distinction as it dictates which bodies of organisational literature and design literature are relevant and which are not.

Traditional studies of organisational change, as described by leading organisational experts such as Beer (1980) and Kotter (1996), have been written from a management perspective and seek to explain what steps the leaders of organisations must take in order to successfully implement change. In doing so they often make the following key assumptions, which the researcher has taken from Kotter (1996):

- the change process is a top down process started by the leaders of the organisation and implemented by managers;

- the change process seeks to address a specific strategic aim of the organisation; and

- organisational change can be reduced to a model so that different types of change can be identified and then dealt with.

This traditional approach has come under considerable scrutiny within the last twenty years, with criticism being levelled and alternative models being proposed. A comprehensive review of this body of organisational change literature is outside the scope of this research study. However, an understanding can be gained by considering the findings of Higgs and Rowland (2005) who seek to review the available literature, identify the different approaches to change and then test their effectiveness in a series of case studies. This is an appropriate piece of literature to consider in this way as it appeared in a peer reviewed journal and has been cited over three hundred times in other published works.

Higgs and Rowland begin their discussion by making three key observations.

Firstly, they argue that the traditional approaches espoused by Beer and Kotter are overly simplistic and do not reflect the complexity or messiness of change. Secondly, they argue that change is not limited to top down management processes but may emerge from within organisations. Thirdly, they argue that almost all of the literature on change management is theoretical and suffers from a lack of empirical research. Having made these observations they carry out a review of the literature and argue that the literature can be organised into four distinct approaches to change – 'Directive', 'Master', 'Self Assembly' and 'Emergence' (which Higgs and Rowland refer to elsewhere as 'emergent change'). These approaches are differentiated accordingly to two factors: firstly, whether the approach is implemented from the top down or locally, from within the organisation and, secondly, the complexity of the change (fig. 3.1).

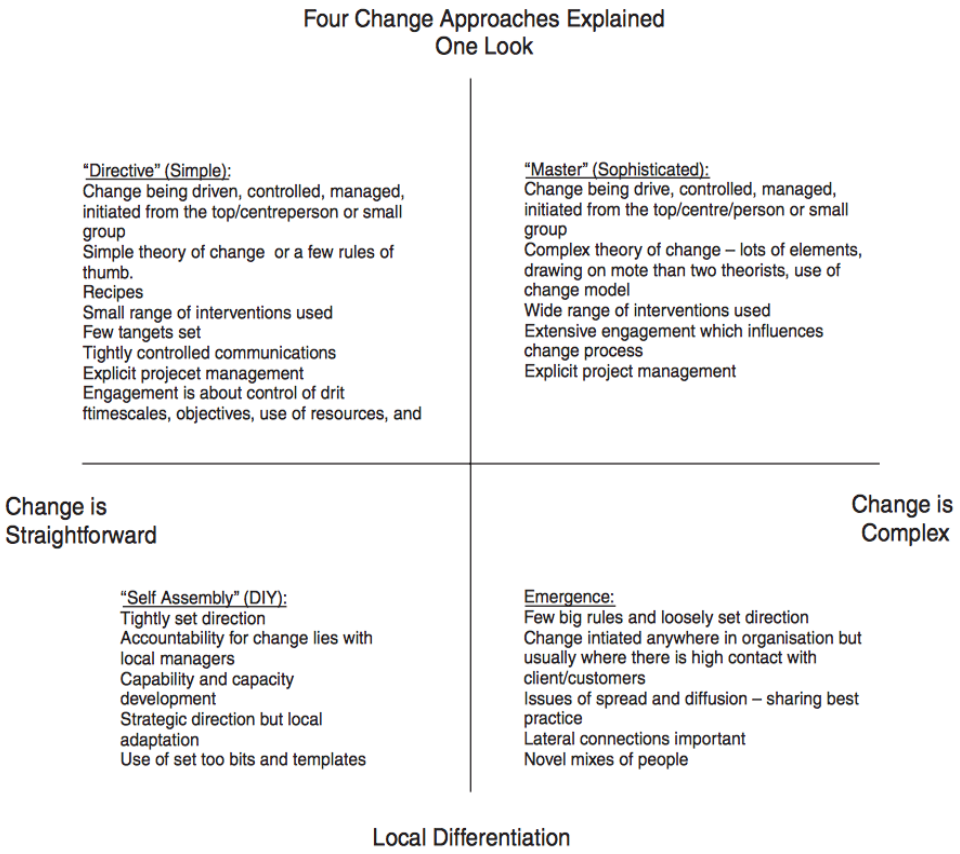


Figure 3.1 Change diagram (Higgs and Rowland, 2005, p.127)

These differentiating factors are relevant to this research study. As has already been stated, this research is concerned with organisational change that occurs when organisations are introduced to new design practices by an external

expert designer through a series of interventions. It is not concerned with change that is implemented by senior management from the top down but the opposite: change from within organisations.

Consideration is now given to the two approaches identified by Higgs and Rowland as occurring locally within organisations - Self Assembly and Emergence - and the characteristics they display. Whilst it is possible to envisage both of the approaches in response to the introduction of new design practices, the notion of 'tightly set direction' associated with a self-assembly approach appears in conflict with the messiness and complexity inherent in design practices. Indeed, this research adopts Schon's (1983) view that design is usually concerned with 'messy, problematic situations' that are difficult to rationalise in a scientific manner.

Despite this apparent conflict the researcher argues that both self-assembly and emergent change may be relevant to new design practices depending upon how the design interventions are aligned and situated within the organisation. Further, the researcher proposes that by looking closely at the findings of Higgs and Rowland consideration can be given as to the characteristics of change caused by new design practices.

Higgs and Rowland used their four approaches to change as the basis for a series of case studies involving interviews with senior leaders from seven organisations. One of the central aims of the study was to understand how effective these approaches were. During the interviews a series of 'stories' were presented of 'unstructured and 'messy' activities and interventions' (p.145) which Higgs and Rowland identified as relating to emergent change. Those particular interviews revealed a number of common elements, as follows:

(1) Micro-level interventions.
(2) Interventions involving individuals or small groups outside of the mainstream of the organisation.
(3) Explicit experimentation.
(4) Establishing unusual or unexpected connections as a means of both sharing learning and transferring new behaviours.
(5) Working through informal networks and alliances.

(Higgs and Rowland, 2005, p.145)

These elements are important as they share characteristics both with the design approaches used by the researcher (ch.4) (elements 1, 2 and 3) and with Wenger's (1998) communities of practice (s.3.7) (elements 4 and 5). These elements are demonstrated within the case studies and key findings (ch.6-8).

These similarities need to be considered in light of criticism from design academics, who argue that the perspectives of management and design are too different to make comparison worthwhile. Hobday et al (2011) characterise this difference in perspective as being a battle between art and science, arguing that:

> the idea of design as a human-centred, core creative activity in business challenges the overly scientific, rational view of the firm and, with it, the standard intervention tools of innovation and management.
> (Hobday et al, 2011, p.5)

This view is echoed by Deserti and Rizzo (2015) who criticise organisational theory for promoting:

> a reductionist way of thinking, thereby producing formulas that can be easily be synthesized and turned into slogans and procedures applicable to a variety of situations with minimal adaption.
> (Deserti and Rizzo, 2015, p.85)

Arguably Sarivanta and Eloranta (2014) take a more balanced and pragmatic view, arguing the value of design tools, methods and processes as drivers for change. However, they still argue that the focus of organisational theory upon team structure and management is too different to make it helpful in understanding the relationship with design.

The researcher shares these views, in particular those of Deserti and Rizzo (2015), as the models of different types of organisational change do appear too prescriptive to describe the impact of design interventions. However, the findings made by Higgs and Rowland in relation to emergent design suggest a more human, qualitative approach that is entirely consistent with inquiring into design practices.

A more suitable nexus between organisational change and design may

arguably be found by considering the political nature of designers and design practices acting as change agents. Organisational scholars Buchanan and Badham (2009) consider change from the perspective of the 'change agent', who they define as an individual concerned with 'seeking to reconfigure an organisation's roles responsibilities, structures, outputs, processes, systems, technology, or other resources' (p.610). They argue that the change agent will encounter 'conflict and resistance' (p.610) as they become engaged in political behaviour within the organisation. They attempt to move away from earlier literature that characterises organisational politics as being negative or a series of dirty tricks. Instead they characterise political behaviour simply as '[acts] deployed simultaneously in the pursuit and defence of organisational goals as well as for personal and career objectives' (p.625).

Penin and Tonkinwise (2009) consider similar forms of political behaviour in the context of the practice of service design within organisations. In doing so they make two points (at p. 4337) that are important: firstly, that designers have 'a rich... sense of the political complexities at work' within organisations and, secondly, that even if design practices are collaborative or co-creative, they are 'in every case and in every way political.'

Accordingly, this research study is not limited to considering types of organisational change, which as discussed above may not be an ideal fit with design. Rather, it takes a broader outlook that includes considering the political behaviour both within the organisation and by the designer, and the potential for conflict between those.

3.3 Managing and design

As referred to already, in the context of design practices (at section 2.4), the notion that design may be useful to managers within organisations can be traced back to 'design thinking' (Buchanan, 1992) colliding with 'managing as designing' (Boland and Collopy, 2004). From this notion two distinct bodies of theory and practice have emerged: design thinking and design management. The researcher argues that neither of these areas are particularly helpful in terms of understanding the relationship between design practices and organisational change.

Buchanan's (1992) paper entitled 'Wicked Problems in Design Thinking' argues that designers have a unique way of looking at problems and that this way of thinking, design thinking, could be applied to human problems outside of the traditional scope of industrial product design. Boland and Collopy (2004) see this way of thinking, which they described as 'design attitude', being valuable to managers, as an alternative to traditional methods of problem solving and decision making within organisations. The notion of design thinking as a stand-alone form of design practice that can be adopted by management has developed further in a subsequent body of literature encompassing Dunne and Martin (2006), Bauer and Eagan (2008), Brown (2009) and Martin (2009).

Design thinking, as espoused by Brown (2009) and Martin (2009) has already gone some way towards proposing an intersection between design and organisational change. It has done this by seeking to rationalise design as a series of stand-alone methods and processes. Therefore, this section considers what the contribution of design thinking is to understanding the relationship between design practices and organisational change and whether it is relevant to this research study.

One of Design thinking's chief architects, Tim Brown, describes design thinking as a way for people who are not expert designers to think like one by using 'the ability to be intuitive, to recognise patterns, to construct ideas that have emotional meaning as well as functionality, to express ourselves in media other than words of symbols' (Brown, 2009, p.4). He goes on to describe an

approach that uses divergent and then convergent phases and, importantly, uses design methods such as sketching and prototyping in the divergent phase. Brown himself recognises that design thinking differs from design as a wider practice and some of the strongest academic advocates of design thinking, such as Carlgren et al (2014a, 2014b) describe it as an abstraction of design, or 'a toolbox of methods inspired by design' (Carlgren et al, 2014b).

Such an abstraction may be problematic when seeking to consider the relationship between design practices and organisational change if design thinking is not representative of design as a whole. Indeed, Deserti and Rizzo (2014b, p.56) argue that 'disconnecting design thinking from 'design doing' is the wrong way to express the potential of design with respect to the management of innovation and organisations'. Whilst Deserti and Rizzo's sentiment may be correct, arguably design thinking does involve both thinking and doing. The researcher suggests that a more constructive argument may be that all aspects of design must be considered, in at least as wide terms as those proposed by Manzini (2015), and that the term 'design thinking' is unhelpful in this respect.

A further problem arises when considering the literature on design thinking: it is dominated by books and journal articles aimed at managers. Whilst many of these contain interesting ideas and useful design methods they do not make a significant contribution to design theory or its understanding of organisational change. Johnson and McHattie (2014, p.5) argue that this 'represents a rhetorical repackaging of design methods for the purposes of management culture, rather than a genuine innovation of organisational culture based upon values in design practice developed in and through the innovation of research. This is a view shared by the researcher.

A typical piece of design thinking literature is by Dunne and Martin (2006), in which Martin is interviewed about his experiences of working with the prominent design thinking agency IDEO. The overarching point of the article is to suggest that managers should learn to think like designers and that this can be achieved by managers adopting design methods. Whilst there may be nothing wrong with this suggestion it is entirely theoretical and lacks the insight that would be

gained from an empirical study.

A more practical application of these theoretical concepts has resulted in ‘design management.’ Design management is concerned with how design can best be utilised by organisations through its proper management. This is a mature area of academic research, with a professional body - the Design Management Institute, founded in the USA in 1975 - that is concerned with ‘collaboration and synergy between ‘design’ and ‘business’ to improve design effectiveness’ (DMI, 2016), leading design academics, such as Cooper (1995) and formal teaching, with Design Management courses offered at many universities globally, including Northumbria University. Whilst some of the literature in this area is valuable, and referred to where relevant in this research study, the focus on managing design rather than engaging in design practices makes it less relevant to this study.

3.4 Conditions that influence the relationship between design practices and organisational change

There is an emerging body of literature discussing the conditions that influence whether the introduction of new design practices will lead to positive organisational change. This is often positioned as conditions for impact, innovation or transformation through the use of design. In this respect the researcher is indebted to Yee and White (2016) for their recent review of the relevant literature and further contribution to it. Yee and White consider the literature - notably Burns et al (2006), Sangiorgi (2011), Bailey (2012) and Warwick (2015) - and organise it into types of conditions for impact using the findings arising out of seven of their own case studies which involved introducing a design-led approach to organisations.

Yee and White identify three types of conditions for impact: community building, capacity and leadership. Whilst these three categories may appear to be generic and common to wider organisational change theory, many of the underlying details are insightful and have solid theoretical and empirical basis. It should be noted that their study was based upon cases in the public, voluntary and community sectors. This helps to explain why community building is one of the more important aspects rather than a more profit-driven focus.

Presented below are the findings from Yee and White that are relevant to this research study. Whilst the main headings of each of the three conditions have been adopted, the sub-headings used by Yee and White have been discarded by the researcher in order to focus in on the relevant individual findings.

Condition 1: Community Building

- Building trust was seen as a key element. Trust from the participants is required in the designer, in the design process and in other participants.

- Trust must be present to enable the designer to act as ‘provocateur’ and challenge the existing assumptions within the organisation (building upon the work of Tan (2012) and Warwick (2015)).

- Using design to tell compelling stories was seen as important to engagement and building relationships.

- Projects require ‘project champions’ at all levels of the organisation ‘to push for and advocate the adoption of new practices, tools and approaches’.

- One-off interventions are not impactful. In their case studies pilot projects were required in order to demonstrate value and progress to further interventions.

- Use of language was important in order to position projects within the organisation.

- Some participants displayed the ability to adapt tools and methods for their own purposes, rather than use them in a prescribed manner, when the expert designers had left the project.

Condition 2: Capacity

- In order to achieve long term impact it was important to build capacity and skills into both the individual participants and the organisations. In the context of transferring knowledge and skills regarding the use of design methods this was often achieved by the designers introducing the methods but the participants being left to implement the methods themselves.

Condition 3: Leadership

- For changes to practices to be adopted they need to be aligned to organisational values.

- Senior management needs to buy-in to the change process and understand what design can offer.

Some of the conditions highlighted by Yee and White are particular to the design approaches used or the organisations participating in their case studies. This does not mean that those findings are not significant, rather they may need deconstructing in order to have a wider application. For example, in respect of the elements of community building regarding storytelling and use of language, the researcher suggests that rather than focusing upon the methods used, the more important factor is that the design activities were situated in such a way within the organisations, in terms of issues and participants, that they were likely to be engaging to the wider organisation. Further, in respect of Yee and White's findings on leadership regarding alignment to organisational values, it may also be relevant how the design practices were situated within the organisation. A situated approach is discussed further below (s.3.5.2) in the context of design culture.

These conditions do not exist in isolation, rather they are part of complex systems that make up organisations. A good example of this can be found in Kretzschmar's (2003) findings. Of all the findings in relation to the Danish design ladder the most determinate factor was the size of the organisation – in the majority of cases the larger the organisation the higher it scored on the design ladder regardless of any other factors. This result is hardly surprising and suggests that the relevance of design practices is enhanced with the size of the organisation and the subsequent business requirements and opportunities afforded to large organisations. Large organisations may also have greater resources, creating greater capacity to engage in design compared to smaller organisations.

This research study seeks to build upon the findings made by Yee and White. In particular, the researcher considers the presence of the conditions proposed in the key findings and also looks for additional conditions when discussing the key findings from the case studies (ch.11).

3.5 Design culture

3.5.1 Introduction

The recent changing focus in design includes a move towards ‘design cultures’ (Manzini, 2016). Before examining the literature concerning the relationship between design culture and organisational change it is important to first understand what design culture is.

Julier (2013c, p.4) argues that design culture exists at multiple levels but that fundamentally it exists at a ‘very local level’ in the way that it is ‘undertaken… lived, perceived, understood and enacted in everyday life’. Julier (2011a, p.1) also stresses the important role that artefacts, in the form of objects, spaces and images, play in design culture, stating that ‘design culture is about processes, people, relationships, flows, fluxes, vectors, but it is also about stuff’.

Whilst Manzini acknowledges and broadly shares Julier’s view of what design culture is, his main focus is upon ‘the culture of the designers themselves and of the communities in which they operate: the culture on which design itself is based and thanks to which innovative meanings can also be proposed’ (p.54). Manzini sees these design cultures as being based around ‘design experts’, or expert designers, as does Julier who stresses the ‘professional status’ of the designer. This perspective is shared by Michlewski (2008) who, in seeking to understand the attitudes of designers, focuses on the cultures of expert designers. This is a valid perspective: in an organisational setting groups of expert designers may well share practices. Indeed, this was evident in this study, in the Ryder case study, where most members of the organisation were architects or other recognised types of expert designers, such as landscape designers.

This research study adopts a wider perspective of design culture, extending beyond expert designers to include all members of organisations who are engaged in design practices. This approach is consistent with Manzini’s own view that design is shifting towards a more participatory and collaborative form of practice, as well as Gorb and Dumas’ (1987) proposal for the existence of

silent design. By applying this wider perspective to the elements described by Julier and Manzini the researcher proposes a general understanding of design culture as being:

> *A collection of design practices that are present in people, processes and artefacts, and in the relationships between these things.*

Contributing towards this general understanding of design culture Julier (2013b, p.5) suggests that in an organisational context design culture means 'an attitudinal and organisational spine within a company that concerns itself … with innovation'. Whilst Julier does not develop this theory further, we are able to turn to other leading academic authors in this area, including Sabine Junginger, Alessandro Deserti and Francesca Rizzo (Junginger, 2006, 2008a, 2008b, 2015, 2017; Junginger and Sangiorgi, 2009, Deserti and Rizzo, 2014a, 2014b; Rizzo et al, 2016).

The dominant format for the literature of Junginger, Deserti and Rizzo is to present existing theoretical models of organisational change and then counter them with descriptive accounts of design projects: their findings and subsequent new thinking are based upon the differences they observe. In both cases they begin from a product design perspective (Junginger 2006 and 2008 and Deserti et al 2014b) before moving on to focus on service design. In Junginger's case she repeatedly refers to 'design legacies' which Deserti and Rizzo (2014b) have taken to mean design culture, an approach adopted by the researcher.

This body of literature is considered by focusing upon how it defines design culture, strategies for developing design culture and how design culture may influence organisational change. It is also considered in the context of Wenger's (1998) concept of communities of practice. Communities of practice is the lens through which the researcher will interrogate organisational design culture by proposing a framework of 'communities of design practice', or CoDP. The researcher is adopting this approach because communities of practice is well established and because it fits with the researcher's view that design practices and design culture are often informal and emerge from within organisations.

3.5.2 Design culture in an organisational setting

Junginger (2015, p.209) takes a broad view of design culture and argues that it exists in 'organisational purpose', 'organisational design approaches' and 'organisational design practices' as follows (pp.214-215):

- Organisational purpose is argued to be the purpose for which the members believe the organisation exists. Junginger argues that this is part of the design culture of an organisation because 'it encourages certain actions and discourages others'.

- Examples of types of organisational design approaches are 'human-centred, process-oriented, problem-solving or cost-saving'. Junginger suggests that designers face challenges in getting organisations to shift between different approaches.

- Design practices can be identified by looking at 'who gets to design'. Who includes internal members of an organisation (who are often silent designers), external experts (who are more likely to identify themselves as designers) and other stakeholders, such as customers (who require a participatory approach in order to be involved in design).

The researcher shares Junginger's views but suggests that these forms of design culture are all in fact aspects of design practices, co-existing at the same time. These can be understood, by using Wenger's (1998) concept of communities of practice, as forms of alignment, design attitude and engagement. This proposal is discussed in detail below (s.3.7).

Deserti and Rizzo (2014b, p.42) define design culture as 'a specific system of knowledge, competences, and skills that operates in a situated context that designers adopt to develop new solutions' and as something that 'can be generated and acquired by enterprises as they develop artefacts and attribute meaning to them in the social contexts in which they operate…'. By defining design culture as including knowledge Deserti and Rizzo enable a link to be made with Wenger's (1998) argument that knowledge is one of the main

contributions of communities of practice.

These proposals are helpful in complementing Julier's and Manzini's thinking about design culture. Importantly, Junginger's (2015) notion of organisational 'design approaches' can be understood as expanding upon Julier's suggestion of an attitudinal spine to an organisation. These design approaches are important as they represent an organisation's perspective on design at a meta level, which is different to design practices, which represent how an organisation uses design at a macro level. Further, at a micro level, these approaches may manifest themselves in the thoughts and actions of individuals and may be viewed in the context of design attitudes as discussed by Michlewski (2008).

Accordingly, from Junginger, Deserti and Rizzo's contributions, the researcher proposes a more finely drawn understanding of design culture in an organisational context as including design attitude as a fundamental part and the development of design ability as a potential outcome. This understanding is consistent with the contributions of Cross and Gorb and Dumas in relation to the development of individual design knowledge and ability, as has been discussed above.

3.5.3 Strategies for developing design culture

The literature makes a number of suggestions for strategies designers may adopt in order to better engage with and develop design culture within organisations. The researcher has separated these strategies into two groups: general conditions and strategies for developing design culture.

The general conditions are similar to and in some cases overlap with the conditions identified by Yee and White (2016) discussed above (s.2.4). They are as follows:

- Building trust (Junginger, 2009)

- Legitimising experimentation (Deserti et al, 2016) and failure (Rizzo et al,

2014b)

- Adopting an integrated and holistic approach to projects (Deserti and Rizzo, 2014b)

- Pilot projects and prototypes - Junginger (2009) suggests these help designers to make the intangible tangible whilst Deserti et al (2014) argue that prototyping is part of the process of design culture in action and a generator of innovation.

- Engaging employees in the development process (Deserti and Rizzo, 2014a)

- Informing and assessing change strategies constantly (Deserti and Rizzo, 2014a)

- Developing insights - Deserti and Rizzo (2014b, p.54) suggest that in order to develop fresh insights a ‘direct but naïve’ approach is required.

The strategies for developing design culture are particular to Junginger, Deserti and Rizzo and are directly concerned with developing design culture in order to cause organisational change. They are as follows:

- Situating design practice - Deserti and Rizzo (2014a, p.93) recommend ‘connecting a change to the competencies of the organisation by situating these experiments within its specific context and culture’.

- Developing insights – Junginger and Sangiorgi (2009, p.4340) suggest that to generate transformative insights, being insights that will lead to organisational change, those insights need to be directed towards ‘the organisation’s fundamental assumptions, values, norms and behaviours…’

- Inquiring into existing design culture - Junginger (2015) advocates designers inquiring into the existing design culture of an organisation so

that:

> instead of having to convince managers, employees and the rest of the organisation that design is relevant, the point is already made and focus can begin on changing design practices that do not lead the organisation to the desired outcomes.
> (Junginger, 2015, p.171)

Having considered these proposals, the researcher argues that the first two of these strategies - situating design practice and developing transformative insights - can be grouped together as a situated approach. Adopting a situated approach would mean that the design practice is situated so as to be either directly or indirectly engaged with organisational change. Direct engagement would mean that design practice is concerned with changing the practices or policies of the organisation, even in a minor way (as advocated by Deserti et al's (2014a, p.92) description of 'small scale experiments').

Indirect engagement would mean that whilst design practice may be concerned with a peripheral issue, such as the design of a new product or service, that the process would also produce insights that are directed towards changing the practices or policies of the organisation (or what Junginger and Sangiorgi (2009) describe as being 'central' to the organisation). As has been argued above (at section 2.4), a situated approach may mean looking past the particular design method being used and instead thinking about where in the organisation the design activity is taking place.

The important role of artefacts in indirect engagement is discussed by Kimbell and Bailey (2017) who argue that the nature of particular design practices, specifically the creation of artefacts, enables new knowledge to be situated in relation to organisational change:

> [prototyping] can co-constitute a situated understanding of issues and how future policies might play out, foregrounding people's experiences of a policy intervention via their material engagement with devices, objects and sites of action, making the practical and political implications of a policy graspable and meaningful.
> (Kimbell and Bailey, 2017, p.222)

Although Kimbell and Bailey are primarily concerned with organisational change

in the context of public policy, arguably the effect of material engagement is universal. Accordingly, their argument is important as it helps to us to understand that a situated approach relies not just on the positioning of new design practices within an organisation, but also upon the specific nature of the design practices. Junginger and Bailey (2017) put similar emphasis on design practices that create artefacts when arguing that the creation of 'organisational design narratives' is important to alignment.

A situated approach differs from the established approach of strategically aligning interventions to organisational aims, advocated by organisational experts such as Kotter (1996). In a design context this approach appears to answer the call made by Best and Koria (2017, p.274) for designers to develop the skill of 'thoughtful alignment (and not so much management)'.

Given the importance of alignment to the success of communities of practice (Wenger, 1998), these differences are discussed below (s.11.3) in the context of which may benefit CoDP.

The third of these strategies - inquiring into existing design culture – is significantly different from the other strategies in that it proposes design practices that are concerned with engaging with and developing the design culture of an organisation. Junginger (2015, pp. 218-221) gives an example of such a design practice when advocating the initiation of 'design conversations'. This practice involves the expert designer using prompts and diagrams to ask questions of people and explore the role of design in the organisation. Junginger goes as far as stating that this form of design practice 'can achieve actual educational gains that lead to new design practices, new design approaches and that reflect on the purpose of an organisation'. The researcher has adopted this strategy when inquiring into the design culture of the case study organisations. This is dealt with in more detail in the methodology (ch.5).

3.5.4 How design culture may influence organisational change

Junginger, Deserti and Rizzo go further than just suggesting individual strategies for developing design culture and causing organisational change, by

seeking to address why design culture may influence organisational change.

Junginger and Sangiorgi (2009, p.4341) argue, in the context of service design, that rather than being employed at the periphery of organisations 'to express existing values and norms through new service offerings', designers should instead 'inquire into the organisational system and its culture, both of which have a strong influence on the ways services can be delivered and provided'. This argument combines elements of both of Junginger's strategies, developing insights and inquiry into design culture. Junginger's model (fig. 3.2) is adopted from Rousseau's (1995) model of organisational culture. This model is offered as a framework to enable designers to reflect upon their role within organisations and to direct their efforts towards organisational change.

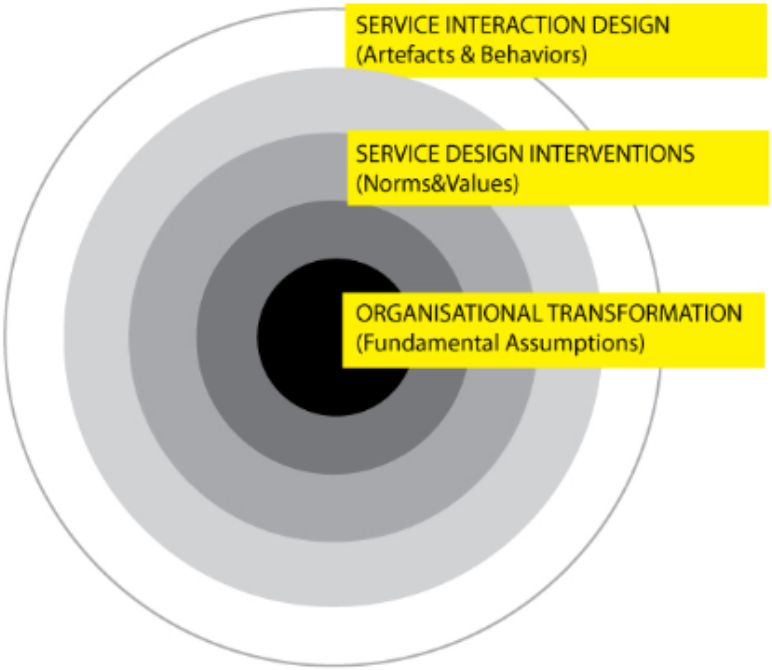


Figure 3.2 Levels of potential impact of Service Design projects (Junginger and Sangiorgi, 2009, p.4346)

As stated above, the researcher has used Kretzschmar's model to guide inquiry into and analysis of design culture in the case study organisations. This has been done primarily through interviews with participants and senior management. In contrast, Junginger and Sangiorgi's model is better suited to being used as a starting point with which to discuss where design interventions are situated and where their impacts occur.

Deserti and Rizzo also seek to address this causal link. Deserti and Rizzo (2014b) use a series of case studies based upon the experiences of three large organisations (LEGO, Sony and 3M) to discuss how design culture in action, in the context of innovation projects, may cause organisational change. Their most significant contribution is to suggest that design culture may create conflict and contradiction which will highlight the need for organisational change. Conflict is suggested in the form of 'challenging the ways in which people interact with one another, [an organisation's] existing capabilities and how daily activities are accomplished' (p.52). Contradiction is suggested in the form of making clear the differences between 'the culture of [an organisation] and the system of competencies, knowledge, and artefacts needed to innovate' (p.52).

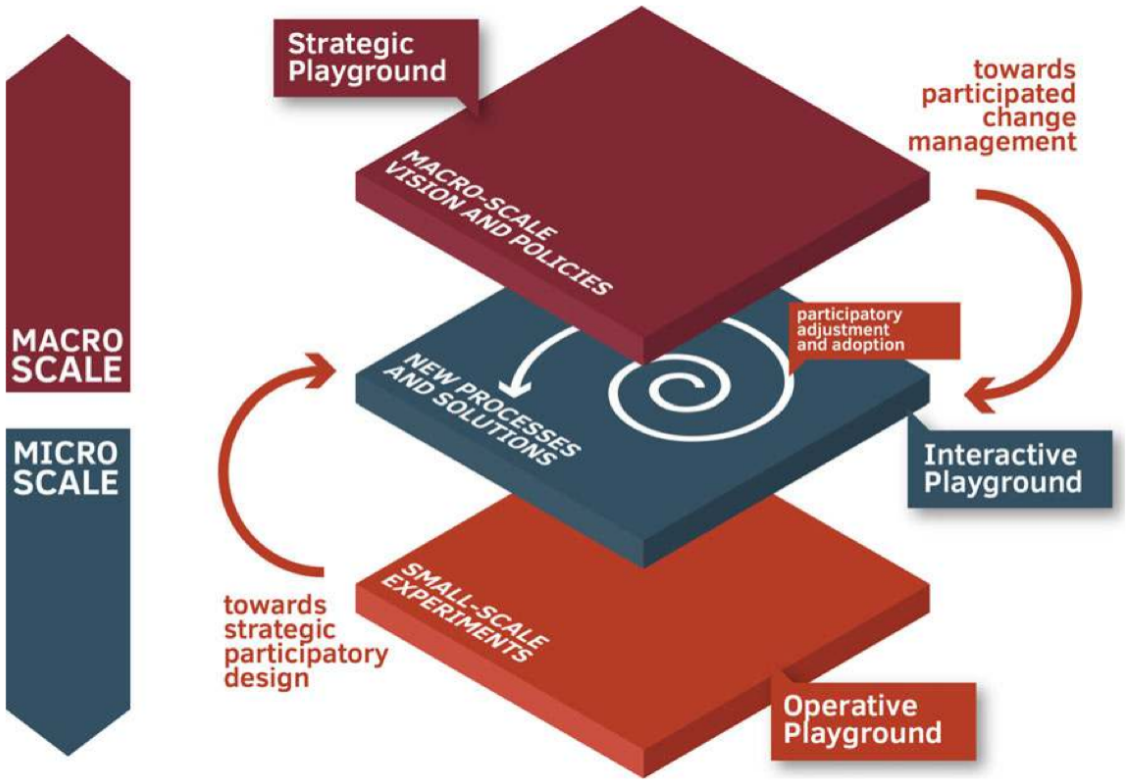


Figure 3.3 Participatory framework for organisational change (Deserti and Rizzo, 2014a, p.94)

In a further study Deserti and Rizzo (2014a) seek to address this causal link, this time in the context of three cases of the redesign of public services utilising small design experiments. They characterise the challenge as being of 'informing the policies [of an organisation] through the results of experimentation' (p.93). Their diagram (fig.3.3) suggests how knowledge gained

in these small scale experiments might percolate up and influence organisational practices, however they do not provide cases to demonstrate this in action.

Deserti and Rizzo's (2014a, 2014b) proposals are particularly interesting because they consider the impact of design culture rather than focusing on individual design interventions. This is an important distinction because it suggests that design culture has an ongoing relationship with organisational change and that from time to time this relationship may change as the design culture develops, including as a result of the introduction of new design practices through design interventions. The researcher argues that this goes to the possibility of impact at a meta level within organisations.

The proposals of *conflict* and *contradiction* as drivers of organisational change need to be considered both in the context of existing design practices that make up the design culture of the organisation and in the relationship with any new design practices introduced through design interventions or which emerge from within the organisation as a result.

Further, these proposals have echoes of the questions posed by Gorb and Dumas (1987) in the potential for conflict between silent and overt forms of design practices. Therefore, as well as considering how it might drive organisational change there is also potential for this conflict and contradiction to be negative, with barriers to be overcome in order for new design practices to flourish. Even if the effects are positive consideration needs to be given to how the conflicts and contradictions between opposing political agendas are resolved.

The model of inquiry suggested by Deserti and Rizzo's arguments may help to produce a dynamic picture that considers the introduction of new design practices. Accordingly, the researcher adopts the model of inquiry, argued for above, to consider the impact of design culture upon organisational change and how this may be influenced by the introduction of new design practices. This has been done primarily through interviews with participants and senior management.

The new directions for inquiry and research into the impact of design culture on organisational change, suggested by both Junginger and Deserti and Rizzo, are commended by Starostka (2014) as amounting to a theoretical leap. Starostka goes as far as arguing that they have shown that design culture and practice can be ‘an agent of change in the culture of an organisation’ (p.73). Whilst the researcher would like to share this view any further research must deal with the scarcity of empirical data in this body of literature. The only first-hand observation is of relatively small scale design research projects that are not in typical organisational settings (by which they are not in the for-profit organisations that dominate organisational literature). In Junginger’s (2009) case the empirical studies were a project with secondary school pupils and teachers looking into the personalisation of their education and a project with university masters students looking at how service design could change their campus library. In Deserti and Rizzo’s (2014b) case the empirical study was a single social innovation project seeking to engage a local community and identify their needs.

3.6 Design of public policy

In recent years there has been an emergent body of literature, discussing how design practices are increasingly being used in the public sector in order to develop new services and formulate policy. Julier (2017) explains that the historical reasons for this development are the establishment of closer links between the public and private sectors in the 1980s and governmental austerity and the search for cheaper and better solutions following the 2008 world financial crash.

The strength of this literature is that it is largely empirical, having been developed from actual practice in the field of public policy. Although there are design consultancies operating in this field, including IDEO, the literature is dominated by research based upon the activity of government funded bodies such as Policy Lab in the UK, MindLab in Denmark and Public Policy Lab in the US and includes government papers (Design Commission, 2013; Design Council, 2013), books (Bason 2010, 2014; Julier 2017), book chapters (Christiansen and Bunt, 2014; Halse, 2014) project reports (Kimbell, 2015), journal articles (Mintrom and Luetjens, 2016) and conference papers (Bailey, 2017; Bailey and Lloyd, 2016a, 2016b; Kimbell, 2016; Rosenqvist and Mitchell, 2016).

Despite this strength, this field of literature remains relatively small and in its infancy. As such the majority of the literature is, understandably, preoccupied both with describing what the design of public policy is and with making a case for it to be considered as a distinct area of practice and research. A good example of such literature is provided by Rosenqvist and Mitchell (2016) who describe in detail how design practices were used in a public waste water project. Bailey (2017) expresses serious concerns that despite its relative infancy, design of public policy is already falling into a similar trap as design research in general and research about design and organisational change in particular - this trap being a tendency to adopt a reductive approach aimed at informing management and focusing only on methods used and results achieved. In the researcher's view grounds for these concerns are evident in papers such as Mintrom and Luetjens (2016), which makes very narrow

proposals for using design thinking methods in the public policy arena. Bailey's argument is that this area of research should be focusing more on the intricacies of the design approach and 'how to negotiate working as a designer in such overtly political contexts' (p.4).

Accordingly, the researcher places significant importance upon the proposals made by Bailey (Bailey and Lloyd, 2016a, 2016b; Bailey, 2017) as to how research about the design of public policy may move beyond describing what is happening and instead attempt to establish a new narrative around why it is happening. Bailey and Lloyd (2016a) ask these questions in the context of new design practices introduced to UK central government by Policy Lab where one of the outcomes of the design interventions is the generation of insights into how people may effect organisational change. Accordingly, they frame the question as being: why do some insights into organisational change get 'mobilised' (p.16) whilst others do not?

These are very similar concerns to those at the heart of this research study, albeit concerned with different subject matter, and as such Bailey's arguments are relevant. Bailey's proposals can be organised into three categories which are discussed below: conflict created by new design practices, the political nature of design interventions, and the need for a theoretical framework.

Conflict created by new design practices

Bailey and Lloyd (2016a) identify the potential for conflict between existing practices and new design practices. They argue that one of the main reasons for this conflict is 'aesthetic disruption' (pp. 21-22):

> Design presents the challenge that there might be other ways of learning, negotiating and collaborating, unrelated to the production of texts. And by changing the physical and aesthetic configuration of people in relation to each other, and in relation to a common problem, it introduces a different social dynamic. This is both its potential to generate different kinds of knowledge, different ideas, and to reconfigure relationships to become more productive. But so clearly challenging some established forms also puts it at risk of being rejected.

They go on to link this risk of rejection to the unfamiliarity of the new design practices. These observations regarding conflict accord with the proposal made by Deserti and Rizzo (2014b) for conflict as a driver of organisational change (s.3.5.4).

Bailey and Lloyd (2016a) also identify two further reasons for conflict – time pressure and democratic accountability – as being specific to central government. Similar challenges in design for policy are also identified by O'Rafferty et al (2016) and Bason (2014). However, arguably these challenges are not entirely specific to design for policy and could be opened up and discussed further in the context of conditions for change within organisations (s.3.4).

The political nature of design interventions

Bailey (2017) identifies a paradox within government – that the formulation of new policy must be apolitical when the impact of any changes are entirely political. This paradox is then compounded by a lack of criticality in design research in general, which lacks understanding of design practices 'entanglement in political agendas' (p.4). Given the subject of Bailey's research, her criticism could be understood as being limited to 'politics' in the context of government enacting political power. However, her argument is helpfully framed in a wider context:

> By plying design in a policy context, and advocating the use of design in leading and managing government, I understand us to be embroiled in political narratives and the enacting of political power.
> (Bailey, 2017, p.2)

This acknowledgement of 'political narratives' within government bodies suggests that the introduction of new design practices should be understood as political acts which may well conflict or compete with existing political agendas. This may not be limited to government but may also extend to organisations in the private sector. As such it supports the literature already discussed above (s.3.2).

Bailey's (2017) proposal for filling this gap in understanding is to develop theoretical lens that will enable alternative narratives to be created. Of the several lens suggested by Bailey the most relevant to this research is the need to understand design practices in their historical context. In expanding this lens Bailey identifies design activism as being the precursor of design for policy – an ancestor shared by the researcher and his colleagues (s.4.5).

3.7 Communities of practice

3.7.1 Introduction

The researcher has already proposed (s.2.1) a working definition of design practices in an organisational setting as:

> *Design practices consisting of courses of action taken by members of an organisation which involve the creation or development of an artefact or artefacts in order tackle organisational issues.*

In this section the researcher proposes that insofar as these design practices are shared they are capable of being viewed as 'communities of design practice', based upon Wenger's (1998) theory of communities of practice. The researcher proposes that these communities of design practice may offer a means of inquiring into and understanding organisational design culture.

Accordingly, this section introduces the theory of communities of practice (s.3.7.2), how this may relate to design practices (s.3.7.3), and what aspects of the theory of communities of practice may help offer a better understanding of the relationship between new design practices and organisational change (s.3.7.4). Communities of design practice will be referred to below in abbreviated form as CoDP.

3.7.2 Communities of practice

This research study uses the concept of communities of practice developed by Wenger (1998) in order to inquire into organisational design culture. However, in order to do so it is important to also consider the other seminal works in this area which comprise the earlier book by Lave and Wenger (1991), the article by Brown and Duguid (1991) and the later book by Wenger et al (2002).

In Lave and Wenger's (1991) book they consider that informal participation by groups of people, which they term 'legitimate peripheral participation', leads to

the creation of a ‘community of practice’. Their focus is on formal and visible groups of people - their case studies include groups of midwives and butchers - and how those groups share existing knowledge with new members. The book does not consider the development of new knowledge by these groups. Their clearest definition of a community of practice is as follows:

> A community of practice is a set of relations among persons, activity, and the world, over time and in relation with other tangential and overlapping communities of practice. A community of practice is an intrinsic condition for the existence of knowledge, not least because it provides the interpretive support for making sense of its heritage.
> (Lave and Wenger, 1991, p.98)

Whilst this definition is loosely drawn and open to interpretation, and as such does not present a clear model that be related to organisational design culture, it does suggest that communities of practice can be used to help make sense of communities within organisations.

In the same year Brown and Duguid’s (1991) journal article presented an argument for communities of practice that was more radical than Lave and Wenger (1991) as they were concerned with how informal networks could create new knowledge. By interpreting a study of innovative practices by photocopy repairmen (which would later be written up by the ethnographer, Orr (1996)) Brown and Duguid highlight a community that was counter to the prevailing culture of the organisation and that shared knowledge through storytelling in order to develop new ways of solving common problems.

Brown and Duguid’s (1991) other important contribution is in making a clear distinction between communities of practice and other forms of collective organisational structures, such as groups and teams:

> Group theory in general focuses on groups as canonical, bounded entities that lie within organisations and that are organised or at least sanctioned by that organisation and its view of tasks… The communities we discern are, by contrast, often non-canonical and not recognised by the organisation. They are more fluid and inter penetrative than bounded, often crossing the restrictive boundaries of the organisation to incorporate people from outside… And significantly, communities are emergent. That is to say, their shape and membership emerges in the

process of activity, as opposed to being created to carry out a task. (Brown and Duguid, 1991, p.49)

More recently Raven (2013) has helpfully illustrated this distinction (fig.3.4).

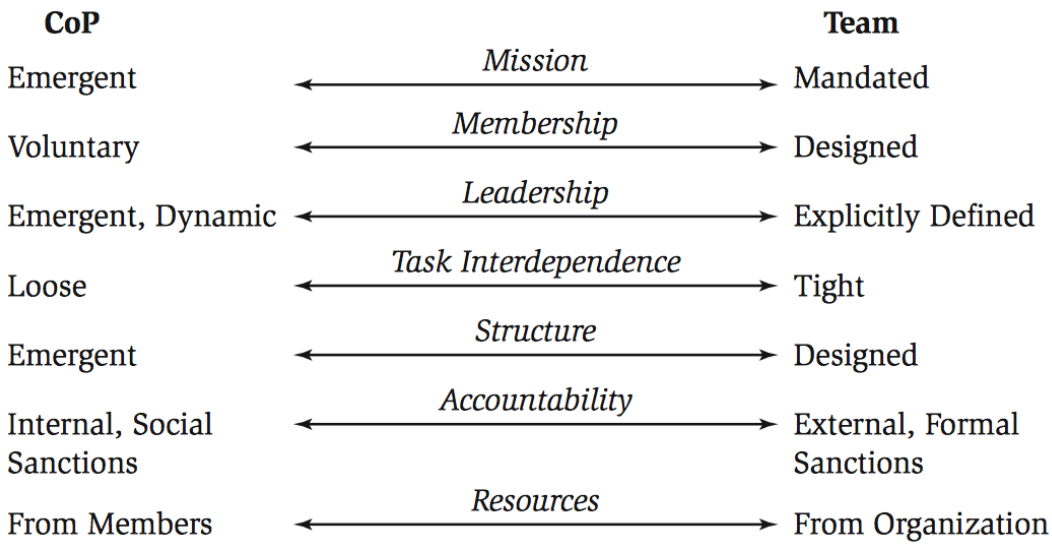


Figure 3.4 Key Dimensions of Communities of Practice and Teams (p. 295, Raven, 2013)

Whilst Brown and Duguid's (1991) arguments have been criticised for being based upon an uncommon case study (Cox, 2005), the development of new knowledge outside of formal team structures arguably has relevance to organisational design culture, including the contribution of new design practices. In particular, the researcher places importance on the concept of communities emerging 'in the process of activity', or from doing things.

By the time Wenger (1998) wrote his definitive book, 'Communities of practice: Learning, meaning, and identity' he had taken on board Brown and Duguid's (1991) contribution and focused on the development of new knowledge, arguing that communities of practice are more likely to exist in innovative or problem solving settings rather than more mundane work.

Wenger's (1998) arguments (and indeed the later Wenger et al's (2002) arguments) are based upon a series of case studies of well resourced US companies. The case studies are based upon longitudinal studies observed from the perspective of practicing commercial management consultancy

services. As such the researcher attaches considerable weight to the findings.

Wenger (1998) seeks to define communities of practice both from the perspective of what constitutes a practice and the role of individuals. In relation to practices they are:

> ... practices that reflect both the pursuit of our enterprises and the attendant social relations. These practices are thus the property of a kind of community created over time by the sustained pursuit of a shared enterprise.
> (Wenger, 1998, p.45)

In relation to individuals, Wenger (1998) suggests that groups of individuals can be viewed as communities of practice where they share 'mutual engagement, a joint enterprise and a shared repertoire of ways of doing things' (p.47).

Wenger's emphasis on *shared* practices is particularly important to this research study. In the context of organisational design culture it would suggest that design practices that are particular to the individual and not shared with others are not capable of being part of a community of practice. However, Wenger (1998) also suggests that communities of practice may exist in various of states of participation - potential, active and latent. Theoretically this may mean that individual design practices could be part of a potential or latent community of practice and that upon being shared they would make the transition towards being a fully fledged community.

In Wenger, McDermott and Snyder's subsequent book, (Wenger et al, 2002) there is a move away from theoretical discussion to instead offer a 'how-to' guide for managers who want to implement strategies that will encourage and initiate communities of practice. In doing so it moves the concept of communities of practice away from informal groups united by common knowledge and issues towards managing the formation of groups for learning in large organisations. Whilst this later model of communities of practice has been widely celebrated in the field of knowledge management (Zboralski et al, 2006) it has also been criticised for becoming commoditised and lacking theoretical grounding (Hughes et al, 2013). Cordery et al (2015) go further by arguing that this represents a theoretical transition away from communities of practice as

informal networks towards ‘organisationally bounded collaborative structures, purposefully created in order to generate improvements in organisational performance’ (p.645). This distinction between informal and formal groups is not particularly helpful – in this research study the groups of participants spanned a spectrum of formality. A better distinction may be whether the communities are emergent or not.

Wenger et al (2002) has also been criticised for moving away from considering the conflict between individual members of a community of practice and the conflict between a community of practice and the wider organisation. Indeed Cox (2005) suggests that rather than focus on the structure of the communities of practice a ‘fruitful’ area of research would be ‘the relation between the internal features of emergent communities of practice and the structural forces within which they operate’ (p.533). This is consistent both with Buchannan and Badham’s (2009) proposal of conflict and resistance as the result of engaging with the internal politics of organisations and Deserti and Rizzo’s (2014b) proposal of conflict and contradiction as drivers of organisational change, and so is relevant to this study.

3.7.3 Communities of practice and design

Wenger (1998) identifies a potential overlap between design and communities of practice. Wenger specifically identifies design as an area of practice where communities of practice may exist and includes both the design of artefacts and organisational processes within his definition of design. Even more fundamentally Wenger places the concept of ‘reification’ at the centre of what is meant by ‘practice’ and defines reification as ‘the process of giving form to our experience by producing objects that congeal this experience into “thingness”’ (p.58). Within reification he includes the processes of both ‘making’ and ‘designing’.

Despite Wenger’s association of design with communities of practice there is only a small body of related literature. This literature falls into two categories: firstly, literature that describes how design approaches may be use to support communities of practice (Esnault et al, 2009; Charlier and Daele, 2009); and,

secondly, literature that describes communities of practice evident in groups of designers (Muller, 2000; Muller and Carey, 2002; Pemberton-Billing et al, 2003; Halstead-Nussloch et al, 2003). This research study is concerned with the second category of literature, of which Muller (2000) and Muller and Carey (2002) are the most important. Before discussing each of these pieces of literature it must be noted that they are all principally concerned with implementing communities of practice, the approach advocated by Wenger et al (2002), and by the earlier journal article that prefaced it by Wenger and Snyder (2000), rather than inquiring into existing communities of practice as per Wenger (1998).

Muller and Carey's (2002) research, building upon Muller's (2000) earlier work, is concerned with individual expert designers employed by US software firm, IBM (previously Lotus) who are spread amongst different teams within the organisation. They are interested in developing a way of managing these designers by implementing a community of practice, consistent with Wenger et al (2002). Muller and Carey's two main contributions are: firstly, to characterise design as a 'minority discipline'; and, secondly, to propose a number of criteria with which to inquire into design practices.

Muller (2000) observes that communities of practice are likely to be particularly important to people who are employed by organisations in 'minority disciplines'. Muller defines minority disciplines as those where people are sole practitioners within their teams and includes design as a typical example of such a discipline. Importantly, Muller argues that such people 'may have no one who shared their vocabulary, methods, or rules of analysis or evaluation' and often have to look outside their teams to find colleagues. Muller and Carey (2002) elaborate on what it means to be a designer in an organisation by observing:

> Like other minority disciplines, designers often lack the support of other designers. They cannot easily ask for a review of a design by other designers. The cannot easily get help on a new graphical design software tool. The cannot easily get advice about how to make a convincing case to people from engineering or business disciplines - people, that is, who do not share a designer's vocabulary or perspective or criteria for what constitutes a "good" design.
> (Muller and Carey, 2002, p.2)

These observations are particularly relevant to this research as the two case studies concern one organisation where designers are in the minority and one where they are in the majority. Further, the need for a widely recognised design vocabulary is proposed as a need of CoDP (s.10.4).

When inquiring into the existing design practices within the organisation Muller and Carey (2002) take a traditional approach and focus on product design and expert designers. They suggest the following criteria may be used as part of the inquiry: different types of designers, their roles within their teams, if and how they made use of artefacts and what materials they used including design tools and design methods.

These suggestions are relevant to this research study as they support the researcher's working definition of design practices that focuses on the creation and development of artefacts.

Pemberton-Billing et al (2003) seek to apply Lave and Wenger's (1991) concept of communities of practice to design teams working in the fields of aerospace, construction and product design. The common characteristic in each of the seven organisations, which included leading design consultancy IDEO, was that the design teams were geographically spread out and members often relied on technology to contact each other. Accordingly, they suggest that 'whilst technology makes distributed design working possible, it is the social practice which can facilitate the sharing of experience and tacit knowledge most effectively' (p.1). The importance placed on face-to-face meetings is relevant to this research as it may be possible to argue that collaborative design practices promote this type of contact.

Halstead-Nussloch et al (2003) explore 'communities of design practice' in the context of online governmental service. This is the least relevant piece of literature as it is entirely concerned with the top-down implementation of communities of practice upon expert designers and does not consider the relationship between design and communities of practice.

3.7.4 Applying communities of practice to design practices and organisational change

The researcher proposes that, in the context of organisations, insofar as design practices are shared they are capable of being viewed as communities of practice (Wenger, 1998) and as part of a design culture. The researcher proposes that aspects of Wenger's theory should be considered to see how they complement what is already known about conceiving design activity as design practices and inquiring into organisational design culture.

The researcher proposes that two particular areas deserve examination: firstly, Wenger's (1998) framework for understanding different types of communities of practice; and, secondly, Wenger and Snyder's (2000) and Wenger's (2002) conditions required for communities of practice to thrive.

3.7.5 Framework

Wenger argues that there are three distinct areas of social processes with which individuals will identify themselves. Wenger describes these areas as 'modes of belonging' (pp. 174-187) and summarises them as follows:

1) engagement - active involvement in mutual processes of negotiation of meaning
2) imagination - creating images of the world and seeing connections through time and space by extrapolating from our own experience
3) alignment - coordinating our energy and activities in order to fit within broader structures and contribute towards broader enterprises.

Before considering what each of these modes may mean in the context of design culture it should be noted that Wenger argues that these modes may be present or absent in any combination. Wenger also argues that it is the differences between these modes and the relationships between them that enable the differences between communities of practice to be explored. This is illustrated in Wenger's diagram (fig. 3.5).

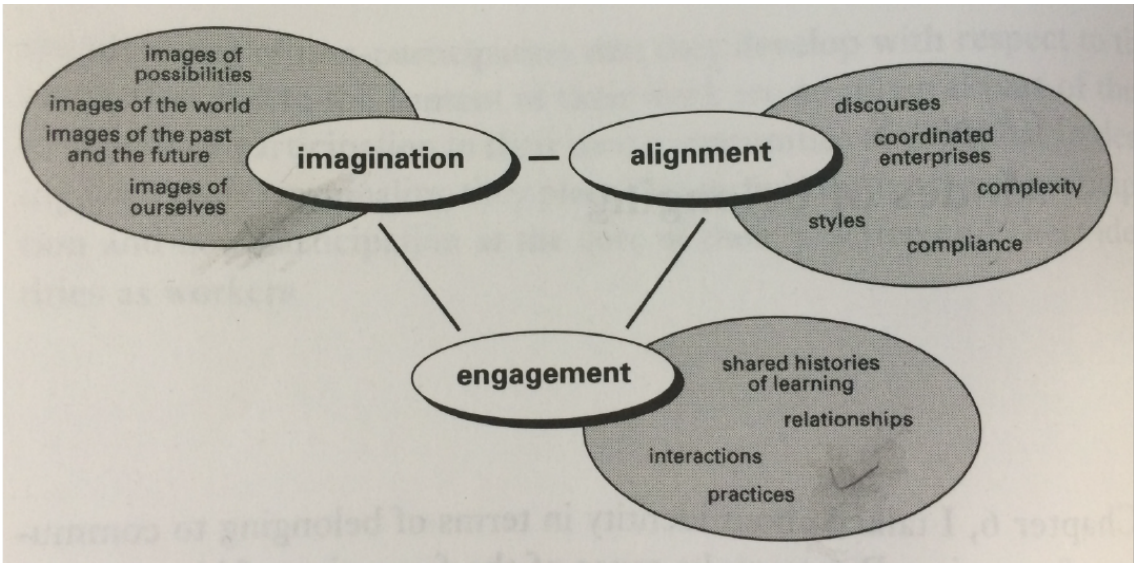


Figure 3.5 Modes of belonging, Wenger (1998) p. 174

The researcher proposes that each of Wenger's modes of belonging can be construed in the context of design practices, as CoDP, as follows:

1) engagement - involvement in shared design practices both through the acquisition of design knowledge and through ongoing practice

2) design attitude - common experiences and characteristics which contribute to a shared design attitude

3) alignment - design practices that are engaged with pursuing a common aim or project

A significant change made by the researcher is replacing Wenger's term *imagination* with the term *design attitude*. These terms are concerned with the same thing: how members of communities of practice see the world. However, in the context of design practices using the term *imagination* risks confusion with the concept of creativity. Design attitude is also a more accurate term in relation to design practices as this study adopts Michlewski's (2006, 2008, 2014) concept of design attitude in order to understand the beliefs underpinning why and how designers act in organisations (s.4.3.3).

The researcher has adopted CoDP as a working framework and has used it to guide the inquiry into the two case study organisations in this research study.

3.7.6 Conditions

Wenger and Snyder (2000) argue that the value of communities of practice is difficult to measure using traditional means because the effects of their activities often appear in the work of teams and departments within the organisations and not within the community itself. In order to counter this they suggest that anecdotal evidence, in the form of members of the communities stories, should be gathered in a systematic manner. This approach appears to be the same as that advocated by Junginger (2015), using interviews to inquire into design culture.

Communities of practice introduce two important principles that may be helpful in understanding what conditions influence the relationship between design culture and organisational change. These principles are, firstly, the benefits of shared practices and, secondly, cultivation (as opposed to management) by senior management. The term *conditions* is given the same wide meaning here as applied by Yee and White (2016) in the context of the relationship between new design practices and their impact upon organisations, including organisational change.

Wenger puts particular emphasis upon practices being shared between people. From this sharing of experience and knowledge Wenger et al (2002) argue a series of examples to demonstrate the value of communities of practice to organisations and community members. The basis for influencing organisational change is suggested as being the establishment of an alternative knowledge bank within the organisation, one that is not constrained by pursuing the aims of a particular team or department but is instead concerned with professional development and the creation of new knowledge. Out of this come two areas of impact that are relevant to this research study: the development of new ways of doing things by community members (new practices) and the establishment and recognition of a new resource within the organisation (which if used may affect how new practices are developed). Whilst the first area may be relevant to

micro and macro level change, the second area suggests a longer term relationship between knowledge and the organisation which may result in meta level change.

It is significant that new practices may be developed as a direct result of a shared approach (Wenger et al, 2002). Looking back at the notions of organisational design culture, discussed above, it is possible to hypothesize that only when design practices are shared within an organisation will some of the value attributed to being a community of practice come to pass. This raises an important issues for this research study: whether shared engagement in design practices may lead to the development of new design practices.

In arguing for communities of practice to be cultivated by senior management Wenger and Snyder (2000, p.140) begin by identifying what they term ‘a managerial paradox’. They argue that the paradox exists in so far as communities of practice are often informal, self-organising and resistant to outside interference, and yet they benefit from being cultivated and nurtured by senior management. They identify two areas of difficulty faced by communities of practice: a lack of legitimacy and measuring their value. They argue that the lack of legitimacy of an informal group of people (as opposed to a formal team or department within an organisation) requires additional infrastructure as follows:

- access to resources both in terms of time and money;
- recognition for their contributions;
- alignment to related initiatives within the organisation; and
- official sponsors who can help provide resources and coordination.

Wenger and Snyder are concerned with what senior managers can do to support communities of practice. It is worth noting that support from senior management is not the same thing as top down management. Putting this concern into the context of design culture would mean considering what senior managers can do to support design practices.

3.8 Summary

This chapter has discussed how the impact of the design practices may be understood in terms of organisational change. It has done this by considering literature regarding organisational change, design culture and communities of practice. In doing so this chapter has established that:

- Organisational theory includes models of organisational change – in particular emergent change - which describe change from within rather than top-down change and which share many characteristics with the impact of new design practices and communities of practice.

- Organisational theory suggests that emergent organisational change may begin at a micro level with interventions aimed at individuals working in informal alliances and using experimental approaches.

- Literature regarding *design thinking* and *managing as design*ing is not directly relevant to this research study as its interpretation of *design* is too narrow to encompass design practices. Further it is focused on top-down change enacted by managers rather than change from within organisations.

- The impact of new design practices may depend upon the presence of interrelated *conditions* within participating organisations. The conditions highlighted by Yee and White (2016) suggest that Wenger's (1998) infrastructure needs for communities of practice may need extending to consider the needs of CoDP.

- Design culture can be understood as a collection of design practices within an organisation. Collectively these design practices may be capable of causing organisational change at a meta level regarding the role of design.

- New design practices may benefit from a situated approach to alignment as well as from a traditional strategic alignment to organisational issues.

- New design practices are political acts which may conflict with or contradict existing organisational practices (including existing design practices) and these factors may be a driver for organisational change.

- Both organisational literature, including Wenger (1998), and design literature validate the researcher's proposal that the concept of communities of design practice may be used for inquiring into and describing design practices in an organisational setting.

- Membership of communities of design practice is based upon the principles of engagement, design attitude and alignment.

- Shared engagement in design practices may lead to the development of new design practices.

- The infrastructure needs of communities of practice can be addressed through support from senior management. This is a means of supporting emergent change from within and is not the same as top-down management. This may be applicable to communities of design practice.

The following chapter is concerned with taking the understanding that has already been developed and moving it away from a generic concept of *design practices*. Instead it focuses on developing understanding of how the approach taken by an external expert designer may influence both design practices and organisational change. It does this both by considering the roles and attitudes of designers within organisations and by considering the basis of the researcher's own design practice: collaborative design activism and disruptive design.

Chapter 4

The external expert designer: roles, attitudes and agendas

4.1 Introduction

The earlier chapters are concerned with understanding design practices (ch.2) and the relationship between design practices and organisational change (ch.3). An important factor in this relationship is the external expert designer, coming from outside to introduce new design practices within the organisation.

Applying a practice theory approach to *how* and *why* external expert designers act within organisations means moving away from literature that considers how designers think (s.2.4) and attempts to explain design activity by adopting the scientific approach advocated by Simon (1969) as typified by Jones' (1970) design methods and by Alexander et al's (1977) pattern language.

The researcher argues that a better understanding can be gained by considering the following:

- How external expert designer position themselves within organisations in terms of the roles they adopt (s.4.2). This is important as all connections and relationships between new design practices and organisations are relative to this positioning.

- The strategic aims of expert designers based upon their predispositions (s.4.3). This is considered both in terms of social agenda and design attitude.

This chapter then proceeds to consider how these roles, attitudes and agendas are understood in the context of the researcher's own practice, in particular:

- The work of the Design Disruption Group at Northumbria University, of which the researcher was a member (s.4.4);

- Collaborative design activism (s.4.5); and
- Disruptive design (s.4.6).

4.2 Roles played by external expert designers

The roles this research is interested in are those that enable the expert designer to drive organisational change. An appropriate starting point is to consider Buchanan's concept of Four Orders of Design (2001) as illustrated at Table 4.1 below.

Table 4.1 Design's increasing complexity/influence (Tonkinwise, 2017, p.2)

	Design of	**Design as**
First Order	Communications	Marketing–led styling
Second Order	Products	Use-context Research-based Form-giving
Third Order	Services	Human-centred Design-driven Innovation of Experience
Fourth Order	Organisations	Social-change-orientated Systems Interventions

In Buchanan's vision it is designers working within the Fourth Order who are directly concerned with organisational change. The researcher takes a rather broader view, that it may be possible for designers working within the other orders to influence organisational change through contributing towards organisational design culture (Junginger, 2008a; Deserti and Rizzo, 2014a). There are arguments, notably Conley (2007), that these separate orders of design can be read directly as the roles of expert designers, e.g. communications designer, product designer, service designer and organisation designer. The researcher rejects these arguments, as these 'roles' are in fact only describing the subject matter of the design practices.

Instead, the researcher prefers the literature that focuses upon how design practices are performed by expert designers in areas that may influence organisational change. This literature is represented by Yee at al (2009) and Howard and Melles (2011).

Yee et al (2009) seek to build upon one of the authors, Lauren Tan's, earlier work which has since been published as a PhD thesis (Tan, 2012a). In doing so they propose seven roles for the external designer working within an organisation in a service design context: facilitator, communicator, capability builder, strategist, researcher, entrepreneur and co-creator.

Howard and Melles (2011) use a communications and service design case study, based around interventions by a group of interaction designers, to propose four interrelated and interdependent roles for the external designer working within an organisation: design lead, teacher, facilitator and director.

There is considerable overlap between the roles proposed by Yee et al and by Howard and Melles and so the researcher proposes a collective summary in Table 4.2 below. The roles proposed by Yee et al are in normal text whilst the roles proposed by Howard and Melles are italicised. The grouping of the different roles proposed is based upon the researcher's interpretation of similar roles.

These different roles are important as both Howard and Melles and Yee et all argue that they go beyond what have historically been considered as the role of designers within organisations. Howard and Melles suggest that to fulfil these new roles designers may be required to acquire new skills such as 'learning design, active listening, mindfulness and coaching' and the attribute of 'strong leadership' (p.155). Importantly they also suggest the requirement for the ability to relinquish control. Yee et al go further, suggesting that organisations may need to change in order to recognise and get the most benefit from these roles.

The researcher will use these roles as the basis for considering the roles the external expert designer plays in the context of the researcher's own practice. In addition, the researcher will consider how these roles may help to create the conditions that are needed for communities of design practice to flourish.

Table 4.2 The roles of external designers working within organisations

Roles	Characteristics	Examples of activities
Facilitator (Yee et al)	Joining up different thinking, philosophy and approach from different parts of the stakeholder groups. Enabling better collaboration, synergy and participation of people. Mobilising and energising thinking of others (Inns, 2007: 25)	Facilitating reflective practice among the stakeholders through formal (for example in workshops) and informal means (for example in conversations). Translating conversations into visuals (for example graphic facilitation).
Facilitator *(H&M)*	*Guides the co-design process while creating a safe environment for people to participate.*	*Shaping an environment.* *Facilitating good conversation.*
Communicator (Yee et al)	Using visuals to initiate conversations around issues, gain feedback for iterations and ideas. Using communication devices to bring together disparate stakeholder groups. Closely linked to the facilitation role.	Examples of tools used include storytelling, diagrams and prototypes. Illustrating relationships, emotions, networks, abstract, systems, prototypes and strategy through visual means.
Capability builder (Yee et al)	Transferring design processes and methods to businesses to enhance their own processes. Acting as a 'conduit' in the knowledge transfer process.	An adoption of design processes and methods into business processes.
Teacher *(H&M)*	*Teaching and capability building through the experience of the design process.*	*This role was evident during design-led workshops where training, facilitation and guidance were all classed as forms of teaching*.
Strategist (Yee et al)	Involved in designing and planning action and policy to achieve a major or overall aim.	Acting as the project champion and lobbying support for the project. Helping create and visualise strategy.

Design lead *(H&M)*	*Using design expertise in guiding a team. Often not limited to a design process.* *Accountability for final design outcomes.*	*Co-design where design by members of the organisation requires the input of an expert designer.*
Researcher (Yee et al)	Doing research with stakeholders and potential stakeholders of the product or service. Project outcome are usually recommendations, improvements, ideas and opportunities translated from design-led research, rather than a design artefacts. Drawing research methods from architecture, development studies, anthropology, social sciences, marketing, business etc.	Using a range of methods such as questionnaires, surveys, vox pops, observations, interviews, personas, context mapping, journey mapping, cultural probes, stakeholder mapping and workshops.
Entrepreneur (Yee et al)	Designer involved in end-to-end process of developing and rolling out an idea that can function profitably or sustainably.	Looking toward commercialising the idea. Looking for ways to develop ideas into a sustainable enterprise model.
Co-creator (Yee et al) ***Director*** *(H&M)*	Relationship with users is to both 'design with' and 'design for.' Co-design's approach is about: the participation of people; a development process; the creation of ownership; and being outcomes-based. *Creating and directing an orchestrated design experience.*	Involving user groups throughout the project to co- create solutions. Using a range of participatory tools such as cultural probes.

4.3 Predispositions

4.3.1 Introduction

De Certeau (1984, pp.37-38) argues that ‘strategy’ is defined by place whilst ‘tactics’ are defined by opportunity and time. In that respect the predispositions of external expert designers, in terms of particular ways of acting or particular attitudes, are strategies: long term aims to be achieved over the course of multiple projects and interventions.

These strategies have historically been understood to manifest themselves in expert designers as social agendas and, more recently, as design attitudes.

4.3.2 Social agenda

An appropriate starting point is Victor Papanek’s book, Design for the Real World (Papanek and Fuller, 1972). Papanek’s central argument, made repeatedly and at length, is that designers should adopt a social agenda and intentionally intervene and bring their talents to bear upon so-called minority issues, such as poverty and disability. The context for his argument was a rejection of 1970’s design and its preoccupation with appearance and “fetish-objects.”

Some 30 years after the first edition of Papanek’s book, Margolin and Margolin (2002) use Papanek’s notion of social design as a starting point from which to consider a ‘social model of design practice’. They do so in the context of a social services intervention and by considering how designers might collaborate in such interventions. Unlike Papanek they do not see a conflict between designers doing socially responsible work and organs of the establishment such as commerce or the state.

Importantly, Margolin and Margolin (pp.24-30) suggest that in order to successfully pursue their own social agenda a designer might adopts a series of strategies. The researcher has selected the following as being particularly

relevant to this research study (the researcher's observations are in italics):

- Designers should develop intervention strategies related to the physical environment and then create products either alone or collaboratively that address identified needs.
  This suggests that artefacts are important.

- Designers should carry out investigative work in order to observe and document the needs that will be addressed by the design intervention.
  This suggests that an understanding of context is important.

- Designers should acquire knowledge of other relevant disciplines through internships and shadowing.
  This suggests to the researcher that an interdisciplinary approach is important.

These strategies are clearly not exhaustive. They are also not exclusive to the pursuance of a social agenda as they are similar to some of the conditions already noted as influencing the relationship between design and organisational change (s.3.4). However, they do suggest that such strategies may be manifestations of social agendas.

The researcher will consider the relevance of a social agenda to his own design approach below.

4.3.3 Design attitude

The researcher places importance upon the contribution of Michlewski's research into 'design attitude' and whose thesis (2006) was later summarised in an organisational journal (2008) and published in book form (2015).

Michlewski seeks to build on the work of Boland and Collopy (2004) who had identified 'design attitude' as the 'expectations and orientations [a designer] brings to a design project'. However, whilst Boland and Collopy's main concern was to consider how the ways designers think could be adopted by managers,

Michlewski is concerned with exploring the 'values and beliefs' that underpin the actions of designers as a distinct professional group within organisations.

Michlewski's findings were based upon interviews carried out with designers from well known design-based organisations including IDEO, Nissan and Phillips. The only unit of analysis was the individual interviewees who were asked to respond to a series of semi-structured questions about the behaviours of designers, including themselves, within their organisation. From these individual interviews Michlewski (2008) observed a number of themes which were then developed into theoretical categories (tab. 4.3).

Table 4.3 Summary of empirically derived categories representing the professional culture of designers (Michlewski, 2008 p. 378)

Substantive categories	Theoretical categories
Reconciling contradictory commercial objectives Bridging approaches, swinging between synthesising and analysing Consolidating multiple languages and media	Consolidating multidimensional meanings (1)
Creative manifesting Rapid prototyping Working with tangibles	Creating, bringing to life (2)
Allowing oneself not to be 'in control' Linear process, detailed planning vs. 'let's see how it goes' Freedom to think and behave differently	Embracing discontinuity and open-endedness (3)
Visual discourse, visual thinking, creative dialogue Aesthetics, beauty, taste Intuition, instinct, tacit knowledge	Engaging polysensorial aesthetics (4)
Concentrating on people, human-centredness Transparency of communication	Engaging personal and commercial empathy (5)
Sense of commercial purpose Authenticity, playfulness	

These categories for individual designers were then developed further in order to represent their 'design attitudes' as a distinct professional group as follows:

(a) designers focus on future solutions where they perceive reality and culture as something pliable — their attitude towards workable solutions is 'assertion-based rather than evidence-

based';

(b) they connect to work on emotional, rational and aesthetic levels, acting on the assumption that they must be coherently consolidated;

(c) designers rely only to a limited extent on predetermined, cumulatively created frameworks and prefer proposing novel, original forms that challenge the status quo;

(d) designers can potentially stimulate or support change in organizations due to their generally positive attitude towards change itself.

(Michlewski, 2008 p. 378)

By isolating these concepts and identifying them as pre-existing attitudes that designers bring to projects, Michlewski's proposal allows us to view these characteristics as factors that influence design practices as opposed to just ways of doing things. Indeed, Niimimaki et al (2014) argue, based upon another empirical study, that the attitude of the individual designer is seen as a key factor in determining the outcome of the project.

The main limitation of Michlewski's research (2006, 2008) is that it only focused on expert designers, despite recognising Gorb and Dumas' (1987) concept of 'silent design.' A further issue is that the interviews were not part of either an ethnographic study of the organisations or repeated over a longer period of time with each designer. Accordingly, the researcher will seek to build upon Michlewski by considering the characteristics for design attitude he has proposed but extending the scope beyond expert designers to other members of organisations as part of longitudinal case studies.

4.4 The work of the Design Disruption Group

During the research period (from 2013 to 2016) the researcher engaged in a body of design activity as a member of the Design Disruption Group ("the DDG"), within the Design School at Northumbria University. The DDG's activities included a series of interventions carried out by the researcher and his colleagues where they acted as expert designers, seeking to introduce members of participating organisations to new design practices.

Members of the DDG, in particular, Rodgers and Tennant (2012) and Rodgers et al (2013, 2014), have considered the impact of these interventions in the context of a series of case studies with local charities (mainly concerned with social care) and local businesses. Further relevant contributions from members of the DDG include consideration of design interventions in a social care context (Carey et al, 2016) and consideration of some of the initial findings of this research study (Green et al, 2016).

Rodgers et al (2013) characterise their design approach by illustrating (fig. 4.2) how interventions might enable designers to come between people and policy makers.

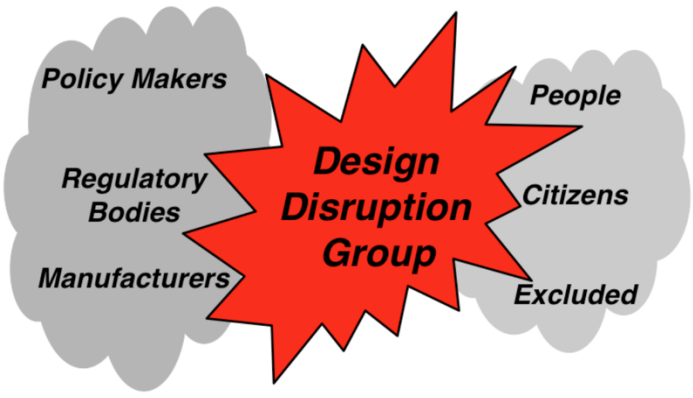


Figure 4.2 Impact diagram (Rodgers et al, 2013, p.12)

The literature also presents findings that may be considered as characterising their design approach as follows:

- Rodgers and Tennant (2012) describe the design interventions as being fundamentally exploratory in nature, as opposed to being aligned towards the need of the participating organisation, such as a new product or service. This intent is characterised by Rodgers and Tennant as a desire to create an 'explorative platform' that is 'more inclusive, forward looking and deeply interested in the unknown'.

- The main aims of the designers were to be 'creative interventionists' and to act as 'change agents' which would be achieved by introducing people to 'new methods' including acting before thinking, developing prototypes and physical sketching (Rodgers et al 2013).

- As with Margolin and Margolin (2002), understanding of context appears to be important with Rodgers and Tennant (2012) stressing the need for the interventions to be investigated before being 'designed' and 'crafted'.

- Key factors in building trust with participants are 'consistency' and 'clarity' as to the person leading the intervention (Carey, 2016). Carey makes this observation in the context of discussing people's experiences of social care interventions led by social workers.

The literature regarding the DDG's design approach is based upon a series empirical studies carried out with a range of organisations. However, the findings claimed are said to only be initial findings (indeed in the cases of both Carey and the researcher (Green, 2016) the conference papers were written whilst the case study research was continuing).

Whilst the setting for some of the interventions (for example social care) may indicate a social agenda it is not made clear. In contrast, the observations made regarding the characteristics of the DDG's design approach do indicate a series of predispositions by members. Arguably these predispositions may be considered as being similar to the design attitudes identified by Michlewski (2008). These issues are discussed further in relation to collaborative design activism (s.4.5) and disruptive design (s.4.6).

4.6 Collaborative design activism

4.5.1 Introduction

The design approach of the researcher, his colleagues and the wider DDG was heavily influenced by design activism and was a form of *collaborative design activism*.

Whilst it is outside the scope of this research study to provide a historical account of design activism, some historical context is provided by examining the body of literature produced by the DDG, in which they discuss the influences upon their practice. The literature concerning what design activism means in a contemporary context is then considered and how it can be distinguished from social design, followed by a discussion of the literature concerning the emergence of collaborative design activism.

4.5.2 Key influences upon the researcher's practice

The DDG identify a series of key influences in journal articles and conference papers by Rodgers and Tennant (2012) and Rodgers et al (2013, 2014) and by the researcher (Green, 2016). In addition, influences referred to by the researcher in the course of the practice that forms the case studies in this research study will also be considered.

Rodgers and Tennant (2012) begin by identifying their main influence as being the Italian Radical Movements of the 1960's and 1970's. These include Superstudio (established Milan, 1966), Archizoom Associati (Florence, 1966), Gruppo Strum (Turin, 1966), Global Tools (Milan, 1973), Studio Alchimia (Milan, 1976), Memphis (Milan, 1981). This movement was formed of groups of architects and designers who rejected existing designs on the basis that those designs merely accepted the prevailing social conditions rather than challenging them. Their response was to create artefacts, in the form of written articles, architectural drawings and conceptual objects, that did challenge the status quo, in the hope that it would inspire other designers to do the same.

Rodgers et al (2013, 2014) identify two common points between their design approach and that of the Italian Radicals as:

- reconsidering the established design process with a view to improving people's lives; and

- adopting an exploratory approach to 'ordinary daily things' and 'contemporary life'.

However, Rodgers et al also seek to differentiate their design approach in the following ways:

> [The Italian Radicals] operated on a massive scale whereas we wish to focus on the minutiae - the archetypal objects that people use in their daily lives.
>
> [The Italian Radicals] carefully crafted their unique aesthetic language, whilst we tend to borrow from the existing formal language of everyday objects and utilise an aesthetic language that is current with the people, and tools that exist, are available, and are used by them.
> (Rodgers et al, 2013, p.5)

These distinctions are important because they help to demonstrate a shift in the focus of design activism away from expert designers creating objects of protest and then sharing them with the world towards expert designers collaborating with others in order to create provocative artefacts that affect everyday life. This difference in focus is also evident in the more contemporary influences cited by Rodgers in the form of Knit the City (knitthecity.com) and Guerilla Gardeners (http://www.guerrillagardening.org/). As will be discussed further below, this shift in focus is a prominent feature of contemporary design activism.

The researcher (Green, 2016) has cited influences including the Situationalists, formed in 1950's Paris (Debord, 2006) and the Dutch design company Droog (de Rijk, 2010). However, the researcher has also used examples of design activism in some of the design interventions, which are included within the case studies. In particular, the researcher introduced participants in workshop based

interventions to the artefacts created by STRIKE! magazine (2015). In order to support its campaign to subvert private advertising spaces STRIKE! created and made available for sale a series of posters, a toolkit and a uniform (fig. 4.3). This form of design activism illustrates the shifting focus identified above by the researcher.

Figure 4.3 Ad space hack campaign artefacts (Strikemag, 2016)

4.5.2 Contemporary design activism

In 1972 Victor Papanek called for professional designers to adopt a mode of activist behaviour in order to meet a new social agenda and turn away from excessive production and consumption (Papanek and Fuller, 1972). Arguably in advocating this approach Papanek gave birth to what would become known as contemporary design activism. The practice of contemporary design activism has been written about in the most comprehensive manner by Alastair Fuad-Luke (Faud-Luke, 2009) in his book upon the subject. Accordingly, his definition is a good place to start in seeking understanding:

> Design activism is design thinking, imagination and practice applied knowingly or unknowingly to create a counter-narrative aimed at generating positive social, institutional, environmental and/or economic change. (Fuad-Luke, 2009, p.27)

Whilst the researcher takes issue with the inclusion of the term 'design thinking', preferring to focus on practice, this is a useful summation of how design can be

used in an overtly political sense in order to achieve activist aims.

Thorpe (2011) offers an alternative approach by first considering the characteristics of activism and then projecting them onto design activities. From this exercise Thorpe is able to define what she calls 'design as activism' as follows:

> It publicly reveals or frames a problem or challenging issue.
>
> It makes a contentious claim for change (it calls for change) based on that problem or issue.
>
> It works on behalf of a neglected, excluded or disadvantaged group.
>
> It disrupts routine practices, or systems of authority, which gives it the characteristic of being unconventional or unorthodox—outside traditional channels of change.
> (Thorpe, 2011, p.6)

One of the weaknesses of both Fuad-Luke and Thorpe's definitions is that they do not satisfactorily explain the relationship between the two key components of 'design' and 'activism'. Markussen (2013) goes some way towards remedying this by arguing that:

> The design act is not a boycott, strike, protest, demonstration, or some other political act; instead, it lends its power of resistance by being precisely a designerly way of intervening in people's lives.
> (Markussen, 2013) p.38

This suggests that design is a method, tool or practice that can be adopted, consciously or unconsciously, and used as a form of activism. This requirement for a design act is taken even further by Julier (2013a, p.219) who argues that design activism is 'work that functions both in a utilitarian and a politicizing sense' rather than 'activities and artefacts, such as writing manifestos or designing political posters, whose sole purpose is changing attitudes'. This suggests a requirement that the design practice or resulting artefacts are not just provocative but are also useful.

4.5.3 The relationship between design activism and social design

Papanek (Papanek and Fuller, 1972) made his call for activist behaviour in the context of a wider argument for the practice of what would become known as social design and socially responsible design. Further, many of the characteristics of design activism proposed by the body of literature referred to above appear common to social design, in particular an interventionist approach and the pursuance of a social agenda. Accordingly, it is important that the literature regarding this relationship is examined in order to be clear about what a design activist approach means.

Deniz et al (2015) seek to distinguish between design activism and social design on the basis of the issues they are concerned with: respectively, social, political and economic on one hand and ethical, humanitarian and less-favoured society on the other. In the researcher's view this distinction is wrong as arguably the correct distinction is that design activism is an approach, a way of practicing design whilst social design is the use of design practices for particular social ends. Whilst this distinction does not fit with Papanek and Fuller's (1972) call for activist behaviour in social design, it is well supported by Davey et al's (2007) argument that it is all about the issues.

This distinction is also helpful in understanding how design activism and social design may be adopted as design approaches in the course of a single project or intervention. A good example is the 'pocket parks' initiative (An oasis of calm in Newcastle's West End, 2016). In that case the designers sought to provoke a response from the local community by building a series of artefacts on a small piece of unused community land (fig. 4.4) in order to challenge people's thinking around who the space belonged to, how it could be used and what parks should look like.

Figure 4.4 Pocket park project - Newcastle Upon Tyne, October 2015

Following the initial response by people in the community the project proceeded as a series of participatory design meetings and public consultation meetings before the designers designed and built the new park. In that case whilst the overall focus of the design practice was to address a series of local social issues, the initial tactic employed was to use a design activism approach. This approach is recognised by Lenskjold et al (2015), in the context of a similar community design intervention, as using design activism 'as a mode of engagement'.

4.5.4 The emergence of collaborative design activism

The requirement for contemporary design activism to provide utility (Julier, 2013a) is a good starting point from which to identify and discuss the literature that underpins the researcher's, and the DDG's design approach: collaborative design activism.

As already discussed, Julier (2013a) suggests a shift in design activism and a movement towards making things better through utility, development, function and process rather than simply being a method of protest that may or may not change people's attitudes. This builds on Julier's earlier work in which he considers the value created by design activist activities in the context of public sector work. He argues that this adoption of design activism by an organ of the

state was a move away from the traditional anti-state, anti-design mind-sets of design activism by way of 'an historical modification' (Julier, 2011a). Julier explains the development of this new relationship as follows:

> The changes in public sector practices offer up new opportunities for those designers with an activist impetus. At base level, this may be in the forming of artefacts, in giving value to things. But they may also be engaged in looking for and articulating new sources of value. Various other sorts of capital may be investigated and demonstrated by the designer such as social capital, knowledge capital or land assets. While some historical examples of design activism might have tended toward garnering these and their relational fit to create an alternative society (eg. the Waldenesque hippy commune), the kind of design activism that is featured in this paper critically takes itself closer to systems of governance and economy.
> (Julier, 2011b, p.7)

Julier (2011b) describes this modification, where there exists a consensual and interdependent relationship between the activist designer and the commissioning organisation, as a form of 'everyday' design activism. Julier's examples are taken from public sector sponsored projects in Scandinavian countries. Given that design activism as an academic subject is still emerging it is difficult finding examples of current practices of everyday design activism in design literature. Arguably it may be easier to find examples taking place in our local communities, such as the 'pocket parks' initiative referred to above.

Everyday design activism is not without its detractors. Indeed, Kaygan and Julier (2013) express concerns regarding the appropriation of design activism by institutions and the state saying that (pp. 236 and 240):

> While on the one hand this provides opportunities, such as more visibility and a better reach to larger publics, it also has its shortcomings. As design activism is reduced to exhibition material or subsumed under approaches that maintain rather than challenge the status quo, it risks being held back from reaching its higher aspirations to bring meaningful change.
>
> One downside of the mainstream embrace of design activism is that it gravitates toward institutionalized frames of reference: the language of entrepreneurship, humanitarian aid, and "innovation." This excludes more oppositional or explicitly political approaches that may rattle existing power structures.

Berglund (2013) harbours even more serious concerns, that a wider de-politicization of design and design activism will ultimately defeat the aims and promise of design activism:

> The impact on political life of the self-consciously activist tone combined with the value of consensus is not innocent. As activism at the margins shades into design policy and commercial opportunities, a disturbing form of compliance arises.
> (Berglund, 2013, p.209)

Markussen (Kaygan and Julier, 2013, p.209) is also alive to this threat, warning that design activism must 'not to lose sight of its original ideas and raison d'être'. He is also concerned that collaboration with big business is leading to a lack of accessibility with design activist's projects being presented 'as if in a museum and the only thing missing is the sign saying, "Do not touch!" But design activism is pretty much about being touched by people – and touching them.'

These issues are particularly relevant to this research study where both case studies are with for-profit organisations, one of which is a large organisation. Accordingly, the researcher accepts the need to discuss whether the findings in this research study show a shift from provocative to compliant and whether this can still be claimed as a design activism approach.

Building upon Julier's work, Lenskjold et al (2015) suggest a further modification in the form of 'minor design activism'. Lenskjold et al suggest a model of design activism practised in a co-design context that is based upon Deleuze et al's (1986) notion of minor. They suggest that in practice minor design activism can be used by the designer as a tactic to enable people to initiate change from within an existing organisation and that this process 'signifies a different kind of political action, precisely because it actuates a movement from within the major' (p.70).

Lenskjold et al describe minor design activism as being a tactical approach by the designer and identify the main tactics, summarised by the researcher, as being:

- challenging preconceptions within the organisation;
- demanding, through 'persuasion, seduction, provocation', that the participants become engaged; and
- considering how the prevailing conditions within the organisation can be rearranged.

Lenskjold's findings are based upon two case-studies, both small, community based, collaborative design interventions. The first project invited people to explore new uses for their local library and the second project explored the relationship between people and their local waste management provider. In both cases the claimed tactics of the designer were evident in how the case was described. Further, the cases reveal several important features of this approach:

- it is not limited to 'marginal or non-commercial domains' (p.67);
- in terms of design methods it relies upon open ended and continuous experimentation;
- it often engages people who would not usually be part of the design process; and
- it involves considering and creating artefacts: 'a material translation through some form of material incursion' (p.76).

This theory is important to this research study as the relative positioning of the designer, the participants and the organisation they are seeking to change is similar to that in both of the researcher's case studies. Further, whilst the 'minor' theory may feel somewhat contrived, what it describes is a form of emergent

change that shares many characteristics with the established model of emergent change in organisational theory (Higgs and Rowland, 2015). Also, it is concerned with what Veiga (2017) refers to as ‘structural change’ through design activism rather than simply changing opinions. It must be noted however that the projects were of a small scale and data only appears to have been gathered through observation rather than systematically through survey or interview.

4.6 Disruptive design

4.6.1 Introduction

> disruption – the action of rending or bursting asunder; violent dissolution of continuity; forcible severance
> (OED, 2017)

In a design context disruption is arguably a characteristic of some or all forms of design activity. In a design activism context, as discussed above (s.4.5), disruption has been recognised as a key characteristic. Faud-Luke (2009, p.10) identifies one of the aims of design activism as to 'disrupt' while Thorpe (2011, p.6) argues that '[design activism] disrupts routine practices, or systems of authority, which gives it the characteristic of being unconventional or unorthodox—outside traditional channels of change'. Markussen (2013, pp.1-9) makes a different, but important, argument that design activism artefacts have an aesthetic quality that is 'disruptive'.

Whilst the researcher shares these views that design activist acts and artefacts may be disruptive, this section discusses how design disruption is a distinct design approach with its own theoretical basis, arising out of Christensen's theory of disruptive innovation (Christensen, 1997, Christensen et al., 2006). It then considers how this approach manifests itself in the role of the designer.

4.6.2 From disruptive innovation to disruptive design

Christensen's (1997, p.34) theory of disruptive innovation relates to the creation of 'an entirely new market through the introduction of a new kind of product or service'. The disruption represents a change to existing markets to which businesses must respond, possibly by changing their own business models. Other innovation experts including Verganti and Dell'Era (2009), have suggested that this form of market disruption may be caused by design-driven innovation in the form of new products or services resulting from following a design process.

This link has been seized upon by a great number of design academics. In the majority of cases this link has manifested itself through the consideration of what role design may play in a world where disruptive innovation takes place, where there is sudden and significant change. An example of this can be seen in the proceedings of the Design Management Institute's conference (DMI, 2014) titled 'Design in an Era of Disruption' where many tens of academic papers addressed a wide range of design management topics against the backdrop of disruptive innovation.

Very few academics have considered how an individual designer may be disruptive or how it may be conceived of as an approach. That small body of literature, consisting of Rodgers et al (2013), Celaschi et al (2013) and Galli et al (2014), is important to this research study and is discussed here. Of those academics Celaschi et al (2013) are most adept in casting Christensen's notion of disruption as a concept of 'acting outside the rules' that can be applied to different contexts, which in their case is design.

4.6.3 The attitude of a disruptive designer

The collective contribution of Rodgers et al (2013), Celaschi et al (2013) and Galli (2014) is to suggest a series of attributes, motivations and modes of practice, which Celaschi et al and Galli refer to as the 'attitude' of a disruptive designer. Despite writing entirely independently of each other, all three share a vision of the disruptive designer as an innovator, capable of creating real change.

The practice of disruptive design as advocated by Rodgers et al has been discussed above in the context of the researcher's practice (s.4.3) and collaborative design activism (s.4.4). Accordingly, what follows relates to those parts of their arguments that explicitly tackle a disruptive design approach. It should also be noted that whilst Rodgers et al were writing based upon their observations of design practice in action, Celaschi and Galli are proposing hypotheses for new models of practice based upon their experience of undergraduate and masters level design education. The result of these differing perspectives is that whilst Rodgers' suggestions are less comprehensive they

should be afforded at least equal weight.

Attributes

Rodgers et al (2013) do not consider the attributes of a disruptive designer other than to identify themselves as a group of design researchers and educators.

Celaschi et al (2013) suggest an undisciplined yet objective designer who they characterise as a 'disruptive designer'. Their notion of an 'undisciplined' designer is based upon the emergence of undisciplinarity in design, as argued for by both Rodgers (2007) and Harfield (2008). However, they argue that undisciplined does not mean a lack of design discipline or focus - rather it means the designer is concerned with challenging emerging design disciplines. They define the disruptive designer as:

> an experimenter who uses the logic of science and art together, integrating them and blending them, a professional of innovative processes that often start from the ability to disavow methods, bypass restrictions, constantly seeking radical innovation and avoiding becoming attached to a single method.
> (Celaschi et al, 2013, p.7)

Importantly, they suggest that in order to 'disavow methods' the designer must first learn the 'rules and methodologies' of their discipline. They argue that this learning often takes place during short, intense courses or specialist post graduate courses rather than a traditional design education.

Galli et al (2014) spend less time considering the characteristics of the individual designer as they are more interested in the generalised role of the designer. In this respect they propose that a disruptive designer will share the attributes of a powerful leader, as modelled by Bass (1991). Galli et al interpret those attributes as being 'a charismatic, transformative leader that envisions the possibilities of change where others follow the imposed rules' (p.2914). Galli et al's choice of Bass as a reference is interesting as it highlights a lack of context in terms of design theory, preferring instead to lean heavily on innovation theory: Bass's book chapter is essentially a training manual for middle

managers that seeks to draw insight from historical military leaders.

Motivations

Rodgers et al (2013, p.9) see 'the development of richer, more varied solutions to everyday issues' as the motivating force for disruptive design process. This approach echoes the aims of social design, which is discussed elsewhere.

Celaschi et al argue that the decision to break with and challenge ways of doing things often occurs during a designer's educational journey. They write that '[t]he discovery of disruption and the consequent decision to transgress as a rule takes place incidentally…' with events and experiences combining with the '...dissatisfaction with the everyday way of working…' (p.7).

Galli et al take a similar view to Rodgers et al, suggesting the need to move design solutions towards more ethically and morally acceptable ground as the driving force behind a decision to challenge the orientation of the design project.

Design practices

As noted above, Rodgers et al were describing actual design practices, rather than proposing theoretical ones. Rodgers and Tennant do this by explaining that it is: 'the creation of designed products and services that disrupt, stimulate debate, and provoke positive change for the people, with the people and by the people' (p.6). The examples of products and services, given over several academic papers, are of design interventions, in the form of creative workshops. The design approach taken in these workshops involved encouraging participants to engage in creative tasks - including sketching and making two and three dimensional objects - in order to 'break the cycle of well-formed opinions, strategies, mindsets, and ways-of-doing, that tend to remain unchallenged' (p.9).

The context for these workshops is argued by Rodgers and Tennant as being the rejection of a conventional linear design process. They argue that a disruptive design approach 'deliberately eliminates and ignores specific stages

[of the design process] depending on the nature of the project we undertake'. They also set out this approach in diagrammatic form (fig. 4.5).

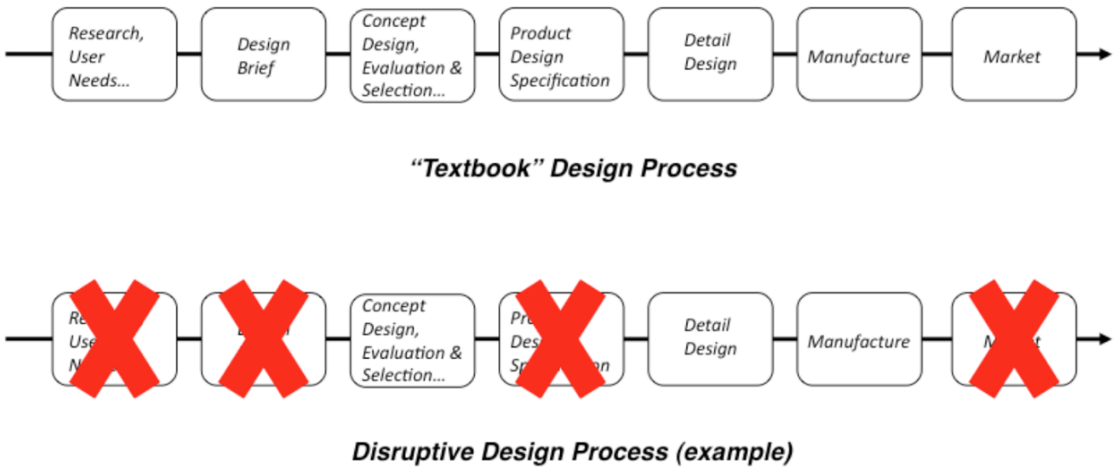


Figure 4.5 Textbook and Disruptive Design Processes (Rodgers et al, 2013, p.13)

Rodgers et al explain that this design approach often occurs in circumstances when there is 'no design brief' or when the designers ignore 'the demands and wishes of the marketplace' (p.6).

Celaschi et al explore the potential for engaging in disruptive design in the context of encouraging the emergence of disruptive designers through design education. In doing so they identify two key questions: firstly, 'can an undisciplined attitude be induced' or taught and secondly, can this be done using existing teaching processes or 'do we need to disrupt the teaching process itself?' (p.8). While this research study is not concerned with design education in a traditional sense, it is concerned with the effect of a disruptive design approach upon members of organisations.

Celaschi et al consider how disobeying rules could manifest itself in the design process itself. Their suggestions include 'fragmenting the process' and 'inverting the linearity of the process.' They also consider how disobeying aesthetical rules by embracing the 'transgression of perfection' would give rise to 'unfinished, imperfect and incomplete' objects. The creation of unfinished objects is key to the researcher's own approach and is discussed later in the

context of provocative artefacts (s.9.4.2)

Galli et al discuss the potential for practising disruptive design in the context of a designer carrying out a field study and investigation as part of a wider design process. They suggest that the designer has to adopt a leadership role that includes an acceptance of 'the violation of usual rules, trying disruptive actions, with unpredictable effects' (p.2908). This approach is shown in Galli et al's diagram below (fig. 4.6).

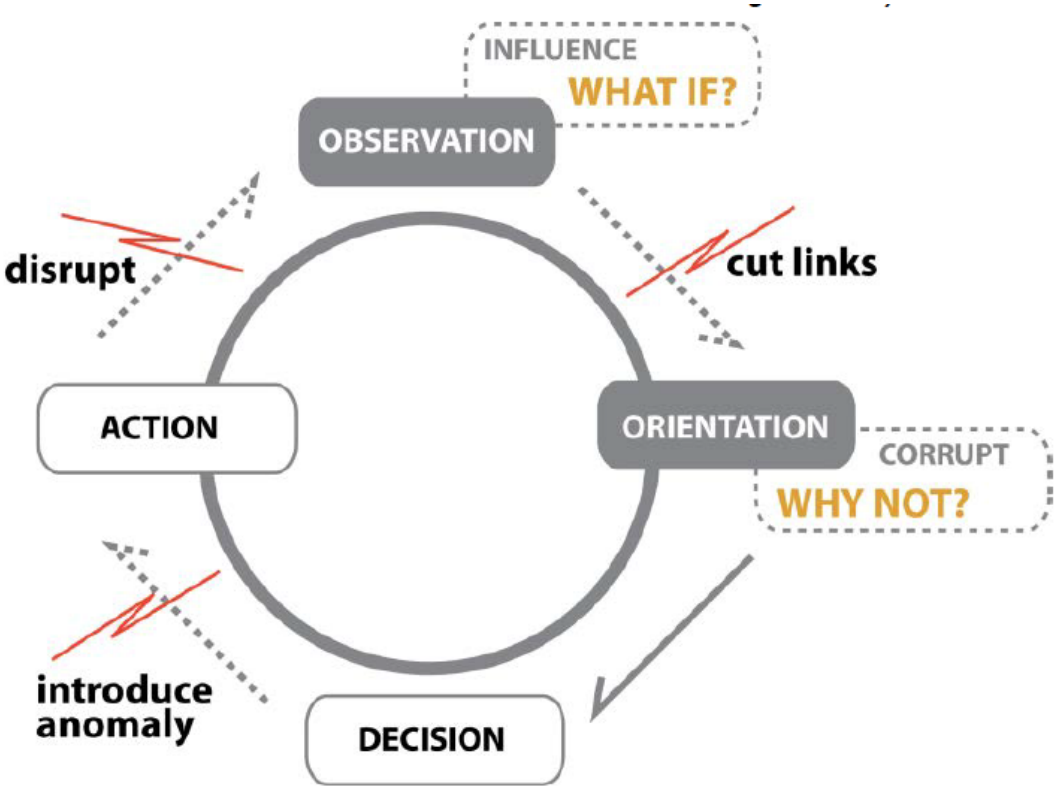


Figure 4.6 The decision process adapted to support a disruptive design approach (Galli et al, 2014, p.2909)

This move away from an existing model of design process shares some similarities with Rodgers et al's approach. This intentional distortion of established design processes and rules, resulting in unfinished objects and unpredictable outcomes is important. The researcher argues that such an approach may be engaging even for expert designers who are familiar with established design practices.

4.6.3 Other relevant literature

The books written by Williams (2011) and Shayler (2013), aimed at managers seeking to use design, are acknowledged as advocating a disruptive design approach even though they do not contribute towards the development of this theory.

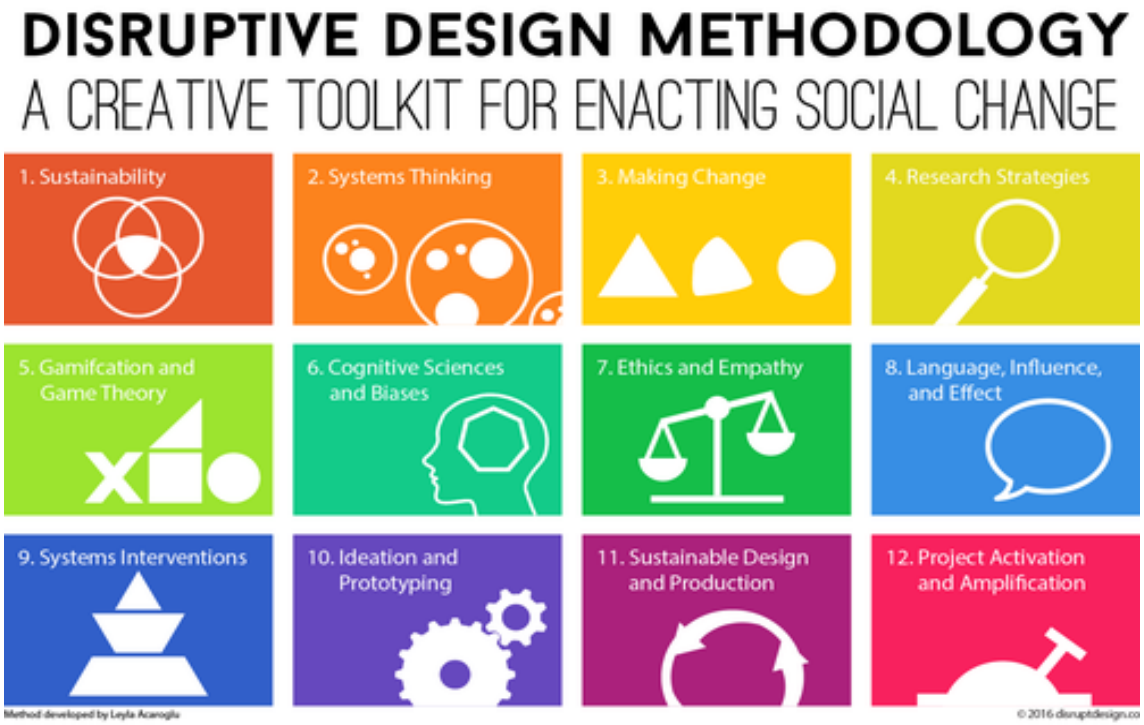


Figure 4.7 Disrupt Design agency's methodology diagram (2016)

Examples of a disruptive design approach can also be found in design practice. In 2013 the Royal College of Art held an exhibition of student work entitled 'Disruption - An investigation on the idea of disturbance, subversion and irritation in art and design practice' (RCA, 2013). Of more relevance is the New York based design agency Disrupt Design whose stated aim is 'using design as a platform for effecting positive social change' (Disrupt Design, 2016). They use their website to publish their methods, which are shown in the diagram above (fig. 4.7). These methods do not suggest an alternative approach, rather they illustrate a mixture of social design and design thinking influences.

4.7 Summary

This chapter has focused on the approach of the external expert designer in the different contexts of roles, agendas and attitudes. It has also sought to understand the design approaches used by the researcher as a member of the DDG, as a form of collaborative design activism and as a form of disruptive design. Whilst the literature surrounding these specific approaches suggests a that they are impactful there is a lack of research as to how and why.

There issues discussed that are particularly relevant to this research study are as follows:

- The roles played by external expert designers working within organisations are varied and include creating the right conditions for members to engage in design practices.

- The literature focuses on design attitude in expert designers and does not discuss how it may be developed or demonstrated by other members of organisations.

- There is an unresolved conflict between an everyday form of design activism that is both ‘a designerly way of intervening in people’s lives’ (Markussen, 2013) and ‘utilitarian’ (Julier, 2013a) and the risk of compliance defeating the provocative nature of an activist approach.

- Collaborative design activism, as described by Lenskjold et al (2015), shares several characteristics with the model of emergent change recognised by organisational theory (Higgs and Rowland, 2015).

- A disruptive design approach intentionally distorts established design processes and rules, resulting in unfinished objects and unpredictable outcomes.

The following methodology chapter discusses how the knowledge developed through the literature review was built upon by the researcher.

Chapter 5

Methodology

5.1 Introduction

The previous three chapters discussing relevant literature have shown that there are multiple gaps in the knowledge relating to how design practices may impact upon organisations and an absence of a relevant framework for making such an inquiry. Accordingly, this chapter is concerned with setting out the methodological decisions that were made by the researcher in order to generate the new knowledge required.

The research has followed a participant-observation methodology where the researcher was a designer-practitioner-researcher (Vaughan, 2017) participating in the design interventions and other activities of the Design Disruption Group ("the DDG"). This approach involved 'a flexible, open-ended, opportunistic process and logic of inquiry through which what is studied constantly is subject to redefinition based on field experience and observation' (Jorgensen, 1989, p.18). This allowed the researcher to observe the activities of other members of the DDG, to take part in the DDG and observe the researcher's own activities, and to access organisations and individuals participating in the DDG's design led workshops and other design interventions.

The opportunity for the researcher to take part in and observe the DDG's activities was sporadic, opportunistic and somewhat ad hoc. Further, in some cases the opportunities were self-generated by the researcher. Accordingly, the methodological approach initially taken was a direction of travel, with the acceptance that events would determine the course and the destination. The parameters at the beginning of the research were that it was concerned with the activities undertaken by the DDG during the course of the researcher's doctoral programme (October 2013 to October 2016) and how those activities would answer the main research question and help to develop the other aims of the research.

The researcher accepts that there may be concerns about bias, self-justification and creating a solution to fit the problem. It is also accepted that if another person had assumed a similar role within the DDG, or if the researcher had joined a similar group of design researchers that different results would have been generated.

5.2 Development of the methodology

The research methodology has changed considerably since it first commenced. By January 2014 the researcher had planned to observe an initial group of design led workshops, each with different organisations, learn from them and then concentrate on later workshops, again with different organisations. The researcher's aim was to develop the findings from these multiple workshops into a collective case study.

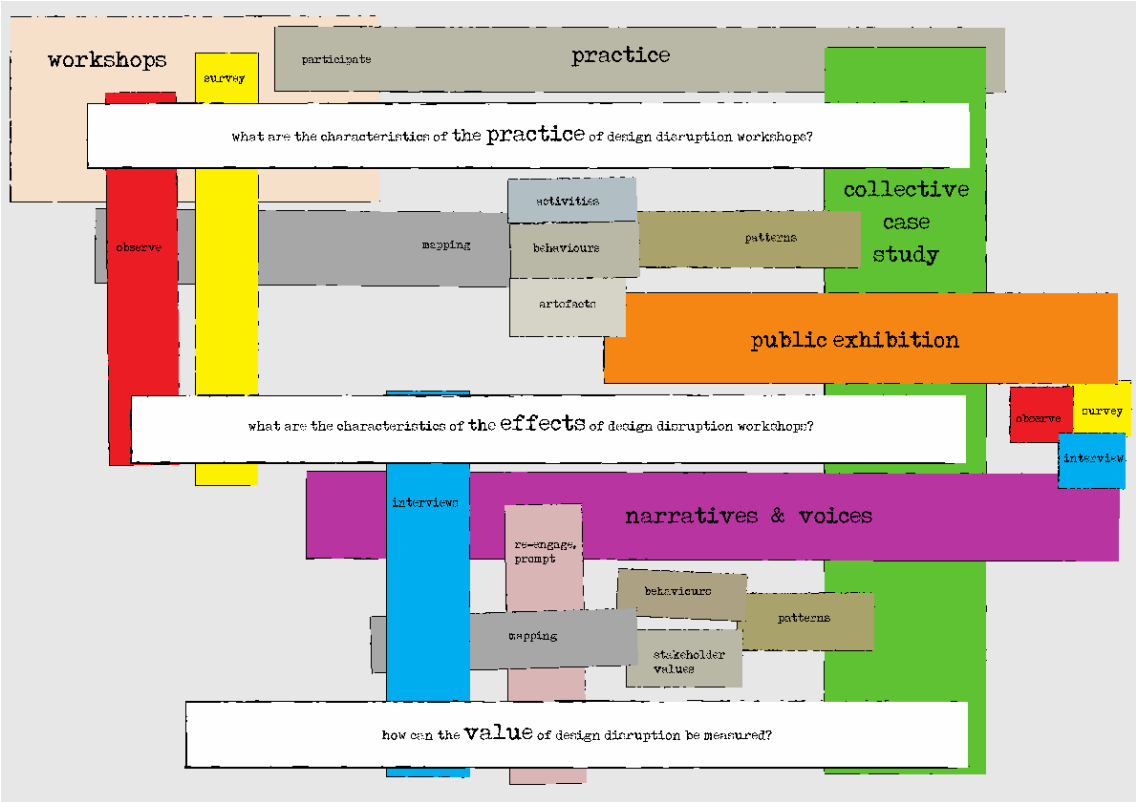


Figure 5.1 Early methodology model

In fact, the first two workshops participated in and observed by the researcher, with Ryder in February 2014 and with Company A in June 2014, would go on to be developed into detailed case studies. However, at the time those workshops took place there was no indication to suggest that further design interventions would take place with those organisations. Accordingly, by June 2014 the researcher was strongly of the view that each initial workshop with a different organisation would be included within the research and then developed into a

collective case study. Further, the researcher was of the view that a series of narratives should be developed in order to tell the stories of different individual participants and their experiences of those workshops. With that intention in mind the researcher proceeded to interview participants from other workshops carried out by the DDG. At that time the researcher was also of the view that the artefacts made in the workshops should be exhibited. The methodology at that time is illustrated (fig.5.1) by an image created by the researcher.

It was not until November 2014 that opportunities had arisen with both Ryder and Company A to initiate further interventions with those organisations. In both cases the invitation for the researcher to continue working with them came directly from participants of the earlier initial workshops. As the conversations between the researcher and the individuals within the two organisations continued it became clear that they offered sufficient scope for each to become a detailed case study and provide the main sources of primary data in this research.

It was important to the researcher that in both cases the requests for further interventions were made by the organisations themselves as this reflected the purposefully ad hoc (Jencks and Silver, 2013) approach historically taken by the DDG and its other members. It is also recognised that an ad hoc approach relies on opportunities presenting themselves. In the case of this study those opportunities were created in part because both Ryder and Company A were organisations with pre-existing relationships with Northumbria University.

5.3 Philosophical approaches

5.3.1 Epistemology

The epistemological position taken by this research study is of radical constructivism, as advocated by Erst von Glasersfeld (1984, 1996). Glasersfeld (1984) claims that radical constructivism 'breaks with convention and develops a theory of knowledge in which knowledge does not reflect an 'objective' ontological reality, but exclusively an ordering and organization of a world constituted by our experience'. He argues that it is up to the individual, in this case the researcher, to 'assemble' specific interpretations of ideas and experiences whilst at the same time exploring this body of knowledge in order to decide what is valid and valuable.

This very subjective approach is well suited to the aims of this research study as it allows the focus to be on what the people participating in the design interventions, including the researcher, believed they were actively experiencing rather than what may be said to be actually occurring were a more objective epistemological approach be taken. This enables the researcher to pick away at the assembly of knowledge possessed by the individuals and organisations taking part in the design interventions, to compare previous experiences with the experience of the interventions and to seek to understand how these new combinations of experiences are or are likely to be used following the interventions.

The model advocated by Glasersfeld is also a reflective one. He argues that as we form pictures of reality based upon our experiences we must then 'prove their viability in that experiential world' and once proved 'they will serve as a model for further acting and thinking' (Glasersfeld, 1996). In the context of this research study this means that as knowledge has been gathered by the researcher it has been tested by directly applying it in the ongoing cases studies, both in terms of design practice and data collection. This testing of knowledge enables new knowledge to be either validated or discarded within the same research study.

5.3.2 Ontology

The ontological position taken by the researcher is that of constructionism. The researcher does not accept that the effects of the design interventions are caused by the application of a series of factors upon a fixed set of external facts, and accordingly does not take an objectivist approach. Instead the researcher prefers Strauss's view that the 'social order is in a constant state of change' (Strauss et al, 1963) and that this view most accurately represents the relationship between the researcher, the DDG, and the individuals and organisations during the period of the research study.

5.3.3 Roles and positioning

The researcher's background as a lawyer, as a student on a masters course in design and as a member of the DDG are discussed above (s.1.2). This background informed the researcher's views on design practices and organisational life. It also enabled the researcher to conduct the research because of his position as a practitioner in this field, a member of the DDG engaging in design led workshops and other interventions. Accordingly, the researcher was engaged, committed and seeking to throw light upon this area of design. Further, the researcher has sought to remain objective, by questioning and criticising himself, throughout the research.

As already stated, the researcher adopted a participant-observation methodology (Jorgensen, 1989) acting as a designer-practitioner-researcher (Vaughan, 2017), participating in the design interventions and other activities of the DDG. The researcher was performing a classic participant/observer role: firstly, acting as the designer-practitioner, engaging with the organisations, designing the interventions and then delivering the interventions; and, secondly, acting as a researcher, by gathering data through observation, film and photography, survey and interview. In addition, the researcher focused on developing access to senior management and other influential people within the organisations. This access, and the informal conversations and interviews that followed, enabled the researcher to develop a sense of context within the organisations both for the design practices and for the actions of the

participants.

This description of the researcher's role suggests that it remained constant throughout the research - this is incorrect. The relationship between the researcher's role and the subject organisations was dynamic and experienced continuous change throughout the research period. This was due to two main factors: firstly, positioning in terms of whether the researcher was an insider or an outsider within the context of the organisations and, secondly, development of new understanding of the researcher's role through reflective practice.

In order to consider insider-outsider positioning the researcher adopts the established contemporary view (Mercer, 2007; Merriam et al, 2001; Merton, 1972; Serrant-Green, 2002) that characterising a researcher as being entirely an insider or an outsider is usually inaccurate and that a better approach is to consider what Dwyer and Buckle (2009, pp.60-62) call 'the space between'. Dwyer and Buckle argue that the dynamic nature of qualitative research means that the positioning of the researcher and the relationships with subjects is always changing. This means that as connections are made and experiences shared with subjects the researcher cannot accurately be described either as being a complete outsider or a complete insider. Merriam et al (2001) make a similar argument, that a researcher will 'experience moments of being both insider and outsider, but that these positions are relative to the cultural values and norms of both the researcher and the participants' (p.416). Accordingly, the researcher considers his position in this research to have encompassed both insider, outsider and the space in between. These changing positions are discussed both in terms of the development of the researcher's own practice (s.9.4) and in the context of insider design activism (s.10.4.6).

The nature of the subject organisations - two for-profit organisations - meant that this research was carried out within workplace settings. Accordingly, consideration also needs to be given to the role of insider researchers within the workplace and the literature of Paul Gibbs (Costley et al 2010, Gibbs 2011). Whilst Gibbs is principally concerned with research where the relationship between researcher and subject is that of work colleagues, the researcher argues that this can be extended to members of communities of design practice

within organisations. Indeed, this is consistent with Gibbs (2011, p.233) own proposal of a researcher as an 'insider' within a community of practice whose research takes place for a specific purpose and duration. Costley et al (2010, pp.50-54) envisage the potential for researchers to have difficulty negotiating access to established communities of practice. However, as will be shown, in this research study the researcher bypassed such barriers by using design interventions to create new communities of practice, in the form of communities of design practice, of which he was either a participating member or an accepted observer.

Whilst Gibbs makes many points that are relevant to research within organisations, the contributions most relevant to this study are the arguments that effective insider research is both political and practical.

Costley et al (2010, p.40) explain the need for researchers to recognise that both organisations and action research are political. To effect change to practices research needs to be 'politically astute' and may require:

> …a range of strategies and tactics which allow both the activity of action research to take place and at the same time develop and maintain relationships to reduce resistance.

Further, these political acts have to be balanced against the 'integrity, credibility and dignity' of the researcher.

Gibbs (2011, p.233) argues that effective insider research takes the form of a 'practical enquiry', where extensive organisational knowledge leads to better judgement in terms of what action to take. Rather than seeking 'divine wisdom', Gibb's insider researcher instead focuses on understanding and then effecting change. Gibbs also explains how practical enquiry includes an explicit awareness of political acts and 'recognises the political [within organisations] and [practical enquiry's] persuasive use of argument, timing and place'.

Understanding of the researchers own role – in particular the development of the researcher's own practice - was developed using a reflective practice model (Schon, 1987). The researcher adopted a reflection on reflective practice

model similar to that proposed by English and Steane, 2007 and shown below (fig.5.2).

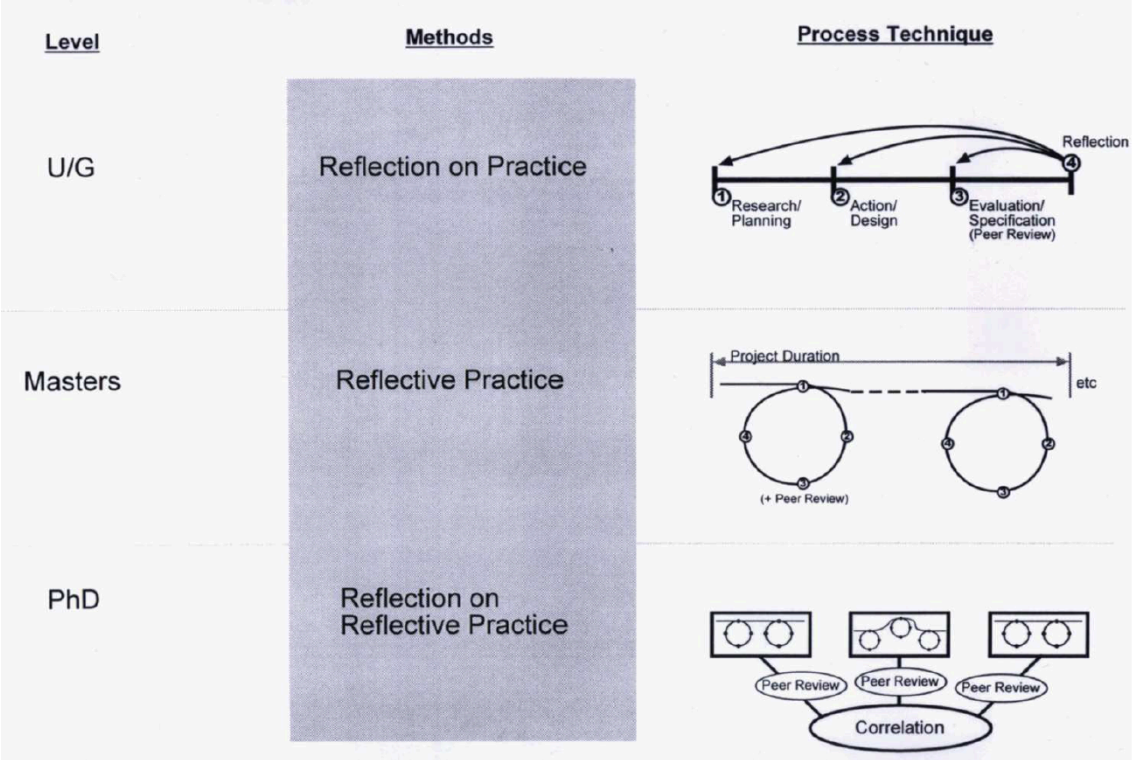


Figure 5.2 English and Young's Level of Reflection Model (English and Steane, 2007)

The first step in the researcher's reflective process was, at the point of evaluating each design intervention, to reflect upon the journal notes, photographs, video recordings, survey results and interview recordings and consider how this data related to his own practice. The second step was to take part in mutual reflection with key individuals from the participating organisations in order to share the researcher's observations and to understand how their own disciplinary practices had been affected. This mutual reflection usually took the form of informal discussion however in some cases it took place in interviews. The third step was to discuss these reflections with the researcher's peer group who consisted of other members of the DDG and other PhD students within the Design School at Northumbria University. The fourth step was for the researcher to create artefacts, including posters and exhibition materials, that sought to make sense of all the other reflective steps and to incorporate further reflection upon the artefacts that had been created during that intervention (this is discussed in more detail at s.9.2.3). The third and fourth

steps together formed the basis for an ongoing meta-reflection upon the nature and development of the researcher's own practice.

The researcher has sought to illustrate this reflective process below (fig.5.3). As well as extending English and Steane's model to include mutual reflection and creating artefacts, the illustration also seeks to make a distinction between when the researcher's own practice was located within the participating organisations and when it was located in the Design School. Arguably this helps to show the transitions between insider and outsider that take place when practice-based design research is carried out within organisations.

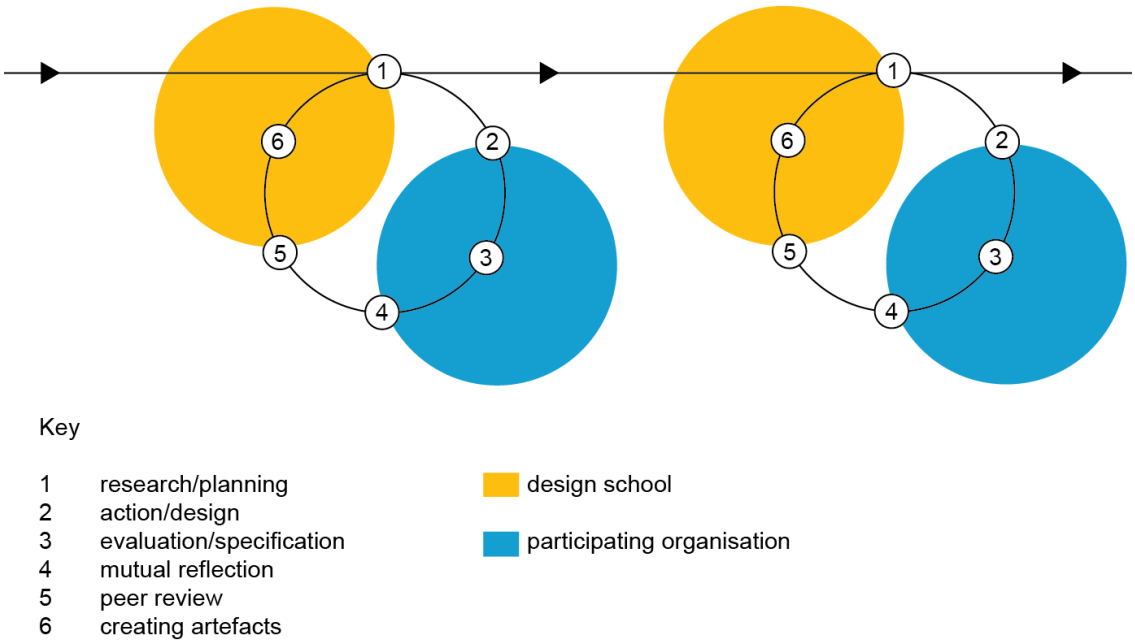


Figure 5.3 The researcher's reflective practice process

5.3.4 Organisational studies

As this research study seeks to understand, apply and develop theory from two different academic disciplines - design studies and organisational studies – it is important to consider the appropriate philosophical approach where the subjects of the case studies are organisations. Given the researcher's position as a participant-observer and the intention to interpret the impact of design interventions upon organisations, including individual members, and the

development of the researcher's own design practice the appropriate theoretical approach is phenomenological. Such approaches are interpretive and consider that meaning is created both by the researcher and by participants in the research (Robson and McCartan, 2016). In organisational studies this theoretical approach has in recent years been applied as methodology by following a practice-based approach (Cetina et al, 2005). Even more recently (Kimbell and Street, 2009, Julier, 2007) this approach has been advocated in design studies. Accordingly, this research takes a practice-based approach and this is discussed in detail below in relation to the case studies.

5.4 Research approach

5.4.1 Introduction

This section sets out the methodological approaches adopted by the researcher in order to gather, analyse and present data. These approaches comprise an overarching practice-based approach (s.5.4.1), a case study approach (s.5.4.2) and an auto-ethnographical approach (s.5.4.2).

5.4.1 A practice-based approach

Practice theory seeks to understand how people shape the world they live in by focusing upon the relationships between people's actions, other people and things. Reckwitz (2002) explains, there are number of competing practice theories, notably Cetina et al (2005), Bourdieu (1990) and Giddens (1984), all of which take different theoretical approaches. The researcher adopts Reckwitz's approach which seeks to draw out a common body of theory and includes the following definition of practice as:

> a routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge on the form of understanding, know-how, states of emotion and motivational knowledge. (Reckwitz, 2002, p.249)

How Reckwitz's theory of practice translates into a design context has been considered by both Kimbell and Street (2009) and Julier (2007) and it is upon this body of literature that the researcher bases his understanding of design as *practice*. This literature has already been discussed in detail in the literature review (s.2.2). The important points to note from a methodological perspective are:

- Practices are distributed rather than being located in individuals. Individuals extend beyond expert designers.
- Knowledge is a feature of practices rather than being in individual minds.
- Objects are part of practices.

- Conceptual frameworks may be developed to analyse the relationships between different activities and the impact of objects.

Nicolini (2012, pp.8-11) argues that there is 'no such thing as a unified practice theory'. This is compatible with Reckwitz's (2002) definition because Nicolini's argument is that different research approaches to practices are relevant depending upon what unit of analysis the researcher is seeking to achieve. As this research study is interested in the impact of people within organisations participating in new design practices an appropriate theoretical lens is 'communities of practice' (Lave and Wenger, 1991; Wenger, 1998; Wenger and Snyder, 2000; Wenger et al, 2002), which is concerned with how informal groups of people share and develop new knowledge within organisations. The theory of communities of practice has already been discussed in detail (s.3.7).

Wenger (1998) argues that, by using communities of practice as a theoretical lens, researchers may be able to identify the following unit of analysis:

> ... practices that reflect both the pursuit of our enterprises and the attendant social relations. These practices are thus the property of a kind of community created over time by the sustained pursuit of a shared enterprise.
> (Wenger, 1998, p.45)

Wenger's notion of *sharing* is at the heart of this research study as it is concerned with what happens when an external expert designer shares new design practices with individual members of organisations. Accordingly, this research study adopts two specific aspects of communities of practice as the back bone of its methodology: firstly, Wenger's (1998) framework for understanding different types of communities of practice; and, secondly, Wenger and Snyder's (2000) and Wenger's (2002) conditions required for communities of practice to thrive.

The researcher has used Wenger's (1998) framework, based upon the 'modes of belonging' to communities of practice (pp. 174-187), to gather and analyse data evidencing existing, introduced and emergent design practices. The only significant change from Wenger's original framework – based upon engagement, imagination and alignment – has been to replace the term

‘imagination’ with ‘design attitude.’ This change reflects the specific focus on design practices and allows Michlewski’s (2006, 2008, 2014) concept of design attitude to be used to understand the beliefs underpinning why and how designers act in organisations. Accordingly, these communities of practice concerned with design practices are identified as ‘communities of design practice.’

5.4.3 A case study approach

The research takes the approach of traditional case study research (Patton, 1990) in that is sets out to focus on a specific entity (Stake, 2008). In this case the entities were Company A, a national retailer and manufacturer, and Ryder, an architecture firm with offices around the UK. In Company A’s case the organisation requested that its actual name be anonymised.

The written case studies that are the result of this research are made up of a range of different types of texts including the images and interviews referred to above. This intertwining of differing methods and fragments of data is intended to create broad yet detailed case studies – a landscape from which the research questions can be answered.

5.4.3 An auto ethnographical approach

Whilst the case studies are the main subject of this research, an understanding of the development of the researcher’s own practice is also important. The researcher’s own practice was arguably a key factor in the progress of the case studies and, given its basis in collaborative design activism and disruptive design, was an emergent form of design practice.

As discussed above, the researcher adopted a model of meta reflective practice. This meant that as well as reflecting upon each design intervention the researcher also engaged in peer conversations and creating artefacts as a means of reflecting upon the continuing development of his own practice as a designer. A record of these meta reflections was made in a series of journals and consisted of written notes and sketches. Those records are highly

subjective as is the researcher's use of them to discuss the development of his own practice.

Accordingly, the researcher's discussion of the development of his own practice is presented (ch.9) as a personal narrative, written in the first person. Use of a personal narrative is well established as a form of auto-ethnography aimed at locating the researcher in the research (du Preez, 2008; Ellis et al, 2011; Vickers, 2002; Spry, 2001). This change of focus, away from the case studies and from 'the researcher' to 'I', is a necessary departure as it establishes an authentic account of the researcher's own experience in so far as it relates to the research questions.

5.5 Data collection

5.5.1 Introduction

This research is concerned with understanding design practices and their impact upon organisations. In the context of the two case studies this means developing understanding at the following levels:

- *Micro*
  Interactions between people and things whilst engaging in design practices including the initial design led workshops, subsequent design interventions and emergent design practices.

- Macro
  The impact of these design practices upon the wider organisation.

- *Meta*
  The contribution of these design practices to the role of design in the organisation.

To develop this understanding data has been collected, using multiple methods, in the form of observation, artefacts made by the researcher and by participants, video footage, photographs, surveys and interviews.

5.5.2 Overview of collection methods

The nature of this data is almost entirely qualitative. There is some potentially quantitative data that has been collected by the surveys however this has been considered only as a possible indicator of patterns or trends and its use has been limited to suggesting possible interview questions or interrogating other data.

These multiple methods of data collection and the corresponding forms of analysis and presentation are set out in the table 5.1 below. This overview adopts a model suggested by Crouch and Pearce (2012).

The researcher has employed a multitude of different data collection methods. This use of multiple sources is recognised as a 'hybrid approach' (Graham, 1997) and is designed to create a 'triangulation' of data (Jick, 1979) of data where data gathered from different sources can be examined in the light of the same research questions in order to create a corroborating whole. This enables the cross checking of data and strengthens the validity of the findings. The observations themselves usually took the form of detailed contemporaneous notes. However, they also include journal notes that record unprompted observations and reflections as well as unplanned encounters with people.

The choice of participating organisations in the research was consciously unpurposeful and opportunistic. During the period of the study the level of activity of the DDG facilitating the workshops was on a small scale, ranging between five and six active members, of which the researcher was one, and with participating organisations comings either through referrals from previous participants or through the professional contacts of the DDG members. On average an initial workshop took place every three months.

Accordingly, the two case study organisations represent the client base of a real-life emerging design and research practice within a design school and have not been purposefully selected in order to demonstrate diversity or similarity. It is however acknowledged that these types of participants may by their nature be self-selecting and may possess preconceptions about the value of taking part in the initial workshops or of simply working with a design school. In order to deal with this issue data regarding preconceptions has been gathered in the interviews with senior management from each of the case study organisations, and has gone on to inform the findings.

Table 5.1 Model of data collection, analysis and presentation

Research aims	Data collection	Data analysis	Presentation
What role do artefacts play?	○ Participation/observation ○ Video footage ○ Photography ○ Survey participants ○ Interview participants	Thematic coding and analysis	Case studies
How do members of organisations, including non-designers, respond to new design practices?	○ Participation/observation ○ Survey participants ○ Interview participants	Thematic coding and analysis	Case studies
How can the impact of new design practices be understood at micro (individuals), macro (organisational processes and aims) and meta (role of design) levels within organisations?	○ Interview participants ○ Interview relevant stakeholders and senior managers	Thematic coding and analysis	Discussion of findings (ch.9)
What conditions are needed for communities of design practice to flourish?	○ Participation/observation ○ Interview participants	Thematic coding and analysis	Discussion of findings (ch.10)
Is communities of design practice a useful framework for inquiring into the relationship between design practices and organisations?	○ Reflection by the researcher	Review of discussion of findings	Conclusions (ch.11)

5.5.3 Ethics and confidentiality

All the participants who took part in the initial design led workshops, including those from the two case study organisations, Company A and Ryder, were provided with an information form and were asked to sign an ethical consent form prior to their taking part. Examples of these forms can be found in Appendix A. In addition, copies of the forms were provided to a senior manager from the organisation before the workshop took place for them to approve.

Following the requests for further design interventions from both Company A and Ryder the researcher met with senior managers from each organisation to agree the extent to which data could be collected and then used. The following points were agreed:

- journal notes, video footage, photography, surveys and interviews were all permitted;
- in every design intervention and interview the participants would be presented with information sheets and asked to sign ethical consent forms;
- in the event that any confidential or otherwise sensitive information was disclosed to the researcher he would seek further consent from the organisation before including it within the thesis;
- the organisations could be named; and
- the individual participants' names would be anonymised so that whilst they may be able to identify themselves from the data it would be difficult for others to do so.

The researcher confirms that all of these issues were complied with. In relation to confidential/sensitive information both organisations requested that some information be taken out of the thesis. The researcher confirms that these requests were complied with but that none of the deleted information was material to the research questions. Copies of the emails covering the agreements with senior management are included at Appendix B.

As has been discussed above, in Company A's case the organisation requested that its actual name be anonymised. In addition, the researcher has removed all

references and images that may make it easy to identify. These omissions were not material to the research questions.

5.5.4 Observation

In the initial phases of both case studies, in particular the initial workshops, the researcher's role was as a participant observer in the activities. When later the researcher did seek to embed himself in the participating organisations in order to understand their culture and behaviours it was for discrete periods of time and, as much as was possible, again in a participatory role. Participation and a close personal relationship with subjects is recognised as being key to success in studies of groups of people (Genzuk, 2003).

The researcher attempted to be reflexive to understand the way in which his own involvement influenced the research (Nightingale and Cromby, 1999). This involved seeking to separate out the influence of the design interventions from the more researcherly activities, in particular the interviews.

In Company A's case this meant limiting meetings to short regular meetings which were mostly at the organisation's request. In Ryder's case a week of observation of creative processes meant actively participating in and contributing to a design competition and a series of internal design meetings. To have done otherwise would have risked a colonizing effect (Hooks, 1990) whereby a continued presence is in itself the driver for changed behaviour or at least a cause of pressure for the participants to say that they had changed their behaviours. Instead the researcher dipped in and out of the organisations, allowing time for the effects of the interventions to grow or dissipate without a constant observing eye.

The researcher made notes in his journal during and after these periods of observation. Examples of journal notes can be found in the Appendix C.

5.5.5 Video and photography

The researcher was conscious that as the settings differed – teaching space, arts space, office meeting room, individual office, open plan office – the approaches to data collection needed to differ as well. As well as being suitable for collecting the data required the approaches used had to be practical in each location and not be so intrusive as to inhibit people from acting naturally. An example of this was the way in which artefacts were photographed when groups of people were present and then when only one or two people were present. In a group setting, where lots of different activity was taking place at one, the researcher used a large digital SLR camera to take high quality photographs of models people had made. However, when individuals showed the researcher artefacts they had made, usually in the context of an interview, the researcher used the camera on his mobile phone to take photographs as the researcher felt that it was less formal and less likely to distract the person being interviewed. Examples of the photographs taken are used throughout this thesis to illustrate findings.

5.5.6 Surveys

Surveys were used to record participant responses immediately following the conclusion of all the interventions, including the initial workshops, that took place during the research period including those where the researcher did not attend or participate. The examples of the surveys, completed surveys and tables aggregating the survey results are included in Appendix D.

The original surveys were drafted in January 2014 as a result of the researcher having reflected upon discussions that had taken place with other members of the DDG. The wording for the original surveys was as follows:

> Please complete the following sentences:
> Before I came here I was …
> The creative tasks made me feel …
> During the session I thought about …
> The objects we made …
> The worst thing was …
> The best thing was …
> And another thing, …

At that stage the researcher was interested in establishing some foundations for the research by asking what people thought about as a result of taking part in the initial workshops. Accordingly, the questions were extremely broad and open. The intention was that the responses given by the participants, together with the researchers own observations of the workshops, would enable the researcher both to refine the research questions and to develop areas of enquiry for subsequent interviews.

The responses were highly informative and suggested themes including a desire to be more creative, frustration with the status quo and the acquisition of new knowledge. However, by late 2014 the researcher wished to know more about what the participants may have learnt and how they thought it might translate into actions, or changes in practice, by themselves and their organisations. Accordingly, a new section to the survey was developed. This was trialled in January 2015 at a workshop with Sunderland City Council's executive team, analysed and revised in time to be used at a workshop with Company A in February 2015.

The additional questions added to the survey sought the participants' agreement on a scale of 1-10 (do not agree at all/completely agree) with the following statements:

1. Part of my job is to be creative.
2. The things we made could be developed further.
3. Design helps to create value within the organisation.
4. I am now more confident about making things.
5. It is difficult to see how these type of activities will help the organisation.
6. The things we made are unlikely to be referred to again in the future.
7. Outside of work I have creative hobbies.
8. I have not acquired any new skills today.
9. Creativity is not important to the success of the organisation.
10. The objects are only relevant to those who made them.
11. Making things helped me to develop some new ideas.
12. The organisation should dedicate more resources to creative activities.
13. Part of my education was in creative subjects.
14. Similar outcomes could have been achieved just by talking.
15. The things we made could be shown to other people in the organisation.

The purpose of these additional survey questions was to begin asking questions that are in the areas of the research questions:

- the role of artefacts (questions 2, 6, 10, 12 and 15);
- how members of organisations respond to new design practices (questions 1, 7 and 13);
- impact of the design practices at a micro (individual) level (questions 4, 8, 11, and 14);
- impact of new design practices at a macro (organisational processes and aims) level (questions 2, 5, 6 and 15); and
- impact of new design practices at a meta (role of design) level (questions 3, 5, 6, 9 and 12).

As well as generating data that was helpful in answering the research questions, the real value of the surveys was in helping to identify areas that were explored further during interviews and in developing themes when analysing the data.

The survey participants are not introduced individually for two reasons. Firstly, there were too many of them – in the case of Company A a total of 106 people. Secondly, the data from the survey participants does not provide any of the key findings in this research study.

5.5.7 Interviews

Interviews provide the main source of data in this research study. All interviews were conducted on a semi-structured basis. Audio recordings were made of each interview and these recordings were used to create partial or complete transcripts, copies of which are included in Appendixes E-G. In addition, the researcher recorded answers that appeared to be particularly relevant to the research questions in his journals. The interviews were all conducted at the premises of the participating organisations, allowing the researcher to gather a further impression of the interviewees role within the organisation.

There were three different categories of interview as follows:

Interviews with participants

Interviews with people who had participated in the design interventions. After each intervention the researcher invited everyone who had participated to take part in an interview. Accordingly, these interviews are with all of those volunteers. These took place following the initial workshops and all the subsequent interventions. The basic structure for these interviews included questions as to their background – career, education and interests – and the impact of the intervention – before, during and after. An example of such an interview, from each case study, is included in redacted transcript form at Appendix E.

Interviews with key participants

As will be seen, in both case studies a single individual emerged who engaged in multiple interventions and in doing so took ownership of the new design practices. This offered the researcher the opportunity to consider the impact of the design practices over a sustained period of time as opposed to the snapshot offered by most of the participants. Accordingly, longer interviews with these individuals, Sid from Ryder and Lynda from Company A, took place towards the end of the research period in order to fill in gaps in their account of events, to clarify points raised in earlier interviews and to reflect upon the interventions as a sustained period of activity. Accordingly, those interviews were more structured and contained some specific closed questions. An example of such an interview, from each case study, is included in redacted transcript form at Appendix F.

Interviews with senior management and other key stakeholders

In order to establish a more objective viewpoint on the design interventions and to gain an understanding of the role of design in the organisations further interviews were held with relevant stakeholders and senior management. Whilst these interviews again sought to gather the same background information in addition they were asked about the impact of the interventions – their attitudes, the relationship with other practices and organisational aims – and the role of design within the organisation - identifying designers and design practices within the organisation. An example of such an interview, from each case study, is

included in redacted transcript form at Appendix G.

The approach taken by the researcher was to interview at least three of the participants from each design intervention and then request permission to speak to at least one of the senior managers or managers working above them. However, in practice the picture that emerged was more complicated than this and interviewees were often interviewed in relation to more than one intervention and in different roles.

All of the interviews were subsequently transcribed by a professional transcription service specialising in academic interviews.

5.6 Analysis and presentation

5.6.1 Data analysis

The analysis of data adopts a grounded theory approach. The researcher adopted Glaser and Strauss' approach to applying theoretical sensitivity through immersion in the data (Glaser and Strauss, 2008).

The data has been analysed in an inductive way, by working up themes and theories from the data. It is recognised that the process of analysis has included the identification of patterns of activity and behaviours and that this has followed a reflective model that has allowed for patterns to be identified and coded and for subsequent data collection to be refined in order to test these patterns. This form of thematic analysis is well recognised in relation to qualitative data (Boyatzis, 1998; Flick, 2009; Cassell and Symon, 2004; Miles and Huberman, 1994; Taylor and Bogdan, 1984).

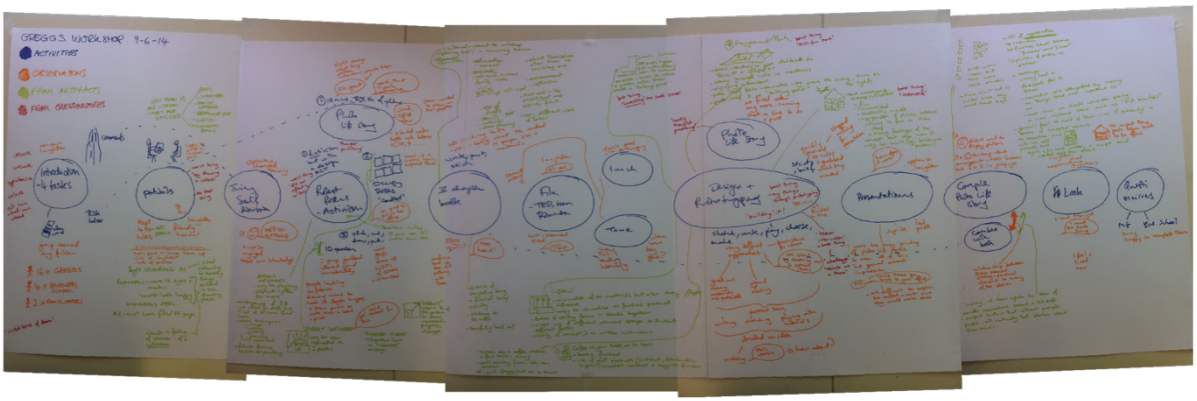


Figure 5.4 Map of data from an initial workshop

The researcher used qualitative data software (Nvivo) to organise and analyse the data gathered from the surveys and the interview transcripts. However, given the volume of this data, and the existence of other data in the form of journal notes, video footage and photographs, the researcher began by using a designerly approach by making large, rough maps of the data. An example of these maps is shown below (fig.5.4). These maps enabled the researcher to

reflect on the data and to physically rearrange it in order to create groups of data. From this process a structure began to emerge.

This structure can be understood through the approach advocated by Strauss and Corbin (2015) who suggest that grounded theory can be constructed in a series of levels. The researcher has applied Strauss and Corbin's 'pyramid' of concepts to this research study at Figure 5.5 below.

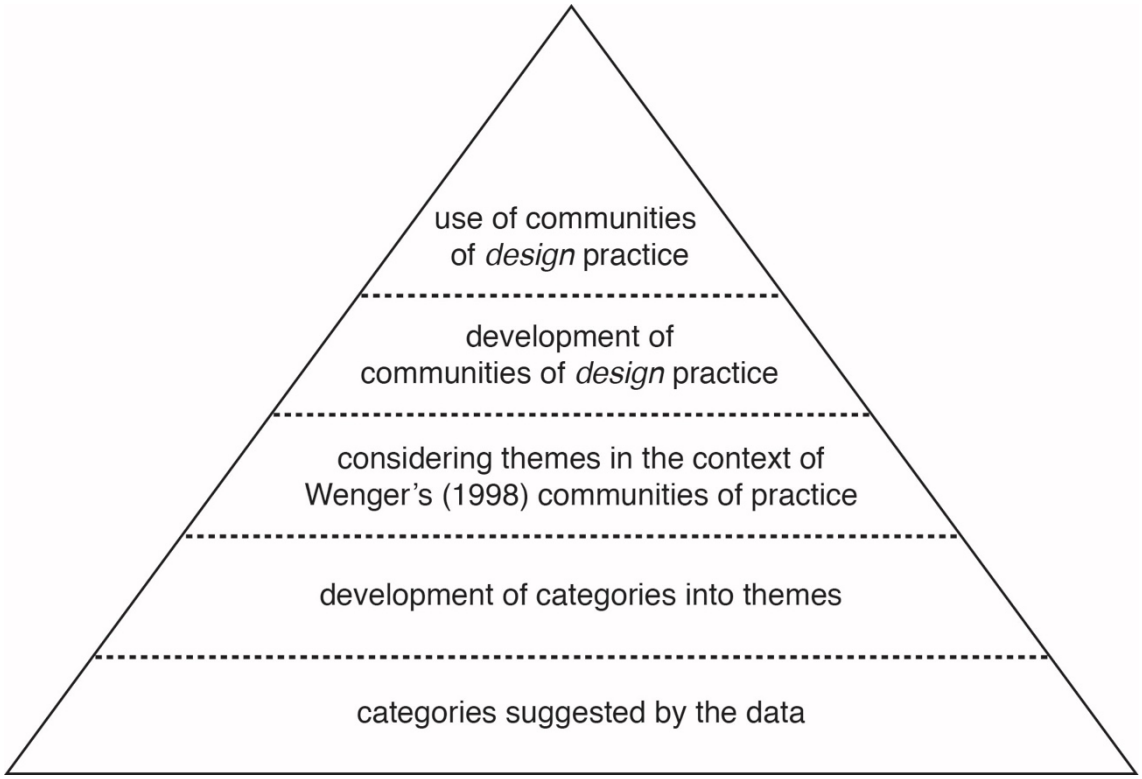


Figure 5.5 Construction of grounded theory in this research study

As with Strauss and Corbin's pyramid diagram (2015, p.77) each level of concepts stands on top of the other. However, the researcher's diagram separates the concepts with broken lines to show that the concepts did not simply progress upwards but that the researcher was continually going back to earlier concepts in order to better understand and refine the new concepts.

The use of qualitative data software enabled the researcher to organise the language based data by applying the proposed framework of CoDP and its three

elements: engagement, design attitude and alignment. In addition to these three themes a fourth group, containing contextual information on the interviewees, was also created. Sub-themes were then created based upon the researcher's interpretation of each piece of data. A node diagram created by Nvivo, showing all themes and sub-themes is included at Appendix H.

Whilst the main data source was the interviews, the researcher's ability to make sense of that data was informed by the researcher's experience as a participant/observer in the design interventions and also by reflecting upon the other data sources.

5.6.2 Presentation of the data

The data has been presented in a traditional case study format. This has allowed the story to be told in chronological order that enables the links between the different design practices to be understood.

The researcher had sought to gather data that related directly to the research questions and also wider contextual data with a view to drawing distinctions between different individual participants. As the research study progressed it became clear that not all characteristics of individuals were relevant. By way of example people's age, sex and their interests outside of the organisation were all irrelevant. The most important factors were as follows:

- whether they were an expert designer
- familiarity with design practices
- whether design was used overtly in their part of the organisation
- decision making power in the organisation
- access to resources
- access to senior management
- engagement in new design practices

Accordingly, the presentation of data focused upon these factors.

5.7 Summary

This chapter has established how the methodology developed and how the researcher decided upon a participant-observation role: acting as a designer-practitioner-researcher and initiating design interventions within organisations.

The main data source was interviews with people who had participated in the design interventions and other stakeholders within the organisations, including senior managers. This data was analysed and presented in a traditional case study format. In addition, the researcher kept journals in order to develop a personal narrative following an auto-ethnographical account.

The following chapter introduces the two case studies and discusses how the nature of the design interventions initiated by the researcher were appropriate to the research question and aims.

Part 2

The purpose of this part of the thesis is to introduce the two case studies and then to discuss the findings that have been gathered from them. It also includes the researcher's personal narrative.

The case studies are introduced (ch.6) in order to establish understanding of the two organisations' background and chronological overviews of the interventions made by the researcher.

The researcher is adopting Wenger's (1998) model of communities of practice in order to inquire into the design culture of organisations by viewing those cultures as communities of design practices (CoDP). Accordingly, the chapters discussing findings in relation to the Company A (ch.7) and Ryder (ch.8) case studies focus upon engagement, design attitude and alignment.

This part also includes the researcher's personal narrative (ch.9) which reflects upon the application and development of the researcher's practice during the research period.

Chapter 6

Case study introduction

6.1 Introduction

This chapter introduces the two case studies selected for this research study. The research unit, the introduction of new design practices to organisations through design interventions, will be introduced by explaining the nature of each organisation's relationship with the University and with the researcher and details of the specific projects where the design practices were undertaken. The design processes and methods used during each design intervention will also be discussed in terms of their selection and delivery. Relevant background information is provided for each of the interviewees.

6.2 Choice of cases

6.2.1 Introduction

The two cases, Company A and Ryder, were chosen because they were the first cases during the research period to progress from an initial workshop to subsequent additional interventions.

During the same period the researcher participated in initial workshops with a group of senior managers from Sunderland City Council, and a group of healthcare academics from Northumbria University and his colleagues took part in an initial workshop with a group from the charity Traidcraft. Although none of those other cases progressed any further than the initial workshop they did provide peripheral data in the form of the researcher's notes and observations, survey results and visual records of artefacts. These other cases are introduced at section 6.5.

6.2.2 Key design interventions

This introduction to the case studies focuses upon the key design interventions. The researcher has decided upon what is key by focusing on particularly intense periods of activity, often involving several participants. This approach is useful as it helps to establish a clear narrative with a sequence of events that can be analysed in turn. However, this research is not concerned only with the key design interventions as this would ignore other interventions, including:

- the development of relationships between the researcher and individual participants throughout the research period;

- conversations between the researcher and the participants before and after each of the key design interventions; and

- the effect of interviews upon the participants.

Accordingly, these other events are dealt with in the Analysis chapters.

The design approaches used by the researcher – collective design activism and design disruption - did not follow a traditional design process where a client produces a brief and the designers respond by following a linear design process. Often, as will be shown, there was no brief, or when there was it was intentionally subverted by the researcher – instead the focus was on creating provocative artefacts. Accordingly, in order to introduce each key design intervention the case studies will highlight the following:

Context: The background information that led to the intervention taking place, including whether it followed on from an earlier intervention.

Subject's expectations: What the participating organisation expected to achieve from allowing the intervention to take place. In the event that the individual participants did not have information about the intervention prior to it taking place this is made clear.

Researcher's intentions: What the researcher hoped to achieve.

6.2.3 Describing the design activity

Most of key interventions consisted of a series of provocative artefacts created by the designer to which the participants responded. This exchange (provoke, respond) can be described satisfactorily in writing.

One of the researchers' central aims in designing each of the provocative artefacts was to encourage the participants to either consider these artefacts or to create new artefacts. The nature of those artefacts is critical to understanding the nature of this form of design practice. It is also critical to understanding what role those artefacts play in creating impact to individual participants and their organisations. The artefacts were almost exclusively of a physical and visual nature – the exceptions being where the researcher encouraged the participants to watch films.

The researcher has provided a series of tables containing text, describing the provocations and responses, which are followed by corresponding groups of images, providing representative examples of the artefacts considered and created. Where the provocations are repeated, resulting in similar artefacts being made, further images are not provided in this chapter. An example of this is in respect of drawing portraits, which is common to many of the key design interventions but with similar results.

The exceptions to the approach of introducing provocative artefacts were when the researcher engaged in Ryder's existing design practices. In those key design interventions, no tables are provided, however images are provided to give examples of nature of the design practices.

6.3 Case relationships

6.3.1 Introduction

To understand the relationship between these different cases it is important to have an overview of both the journey the cases took and relevant characteristics of the organisations that are the two main cases.

6.3.1 Journey of the cases

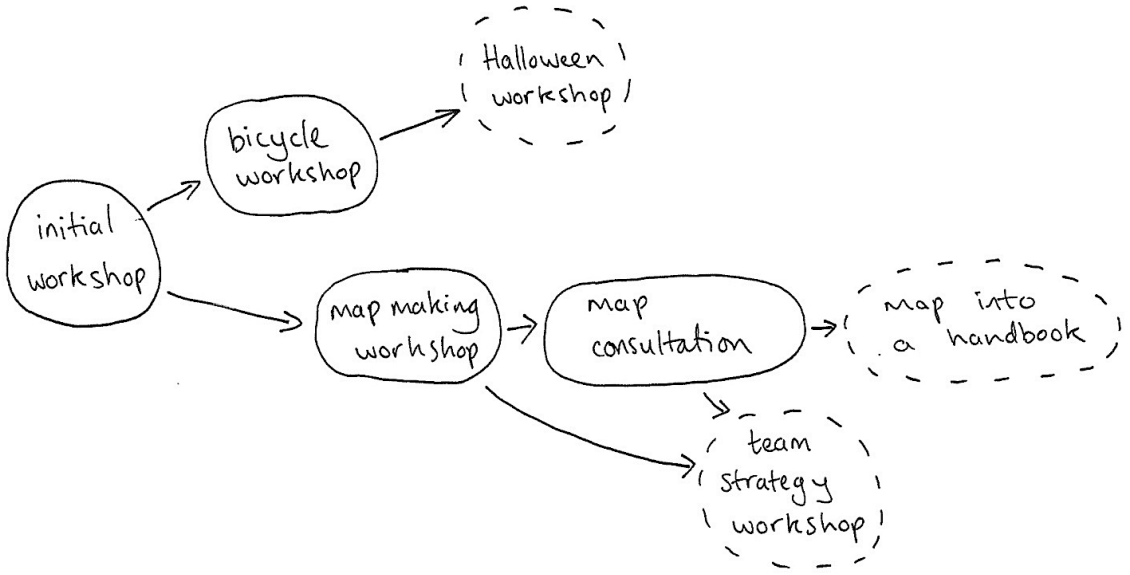


Figure 6.1 Company A's journey

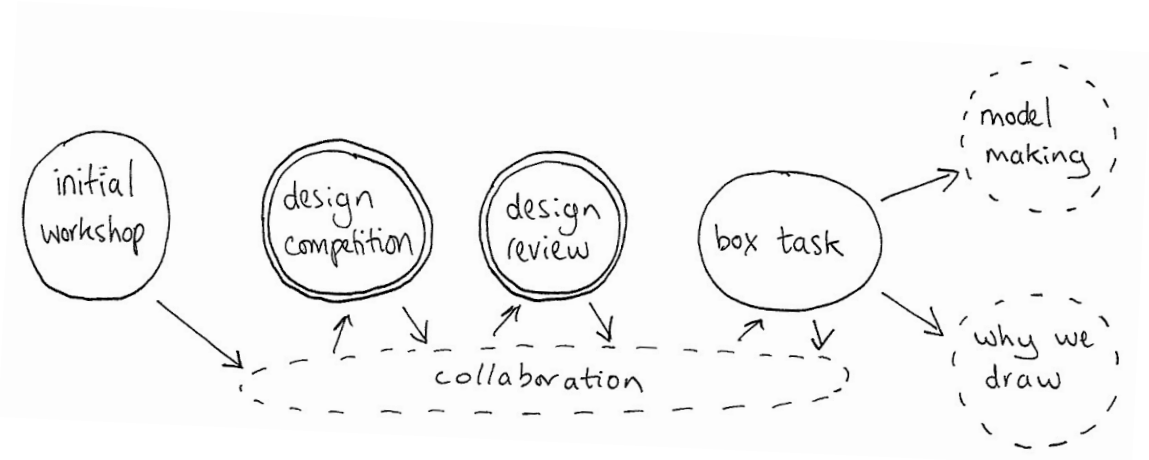


Figure 6.2 Ryder's journey

Above (fig, 6.1,6.2) are sketches created by the researcher to illustrate the journey the case studies took in terms of new design practices. Existing design practices are illustrated with two solid lines whilst introduced design practices have one solid line and emergent design practices have a broken line.

The researcher had considered plotting the design interventions on a timeline in order to demonstrate the exact chronology of events. However, on reflection *time* was not the only relevant factor in how and why the interventions continued to take place or why the emergent design practices were initiated. Of equal importance were the relationships between the different new design practices, which the researcher argues can be viewed as CoDP. Further, the design practices were not precise or easily measurable – quite the opposite, they were messy and existed in the space between people and things.

The sequence in which the cases are dealt with is Company A and then Ryder, however this was not the chronological order. The initial workshop with Ryder took place on 4th February 2014 whilst the initial workshop with Company A did not take place until 9th June 2014. However, the next design intervention to be initiated with Ryder was not until September 2015, some 19 months later, by which time all the design interventions with Company A had been undertaken. As the design interventions with Company A directly influenced the researcher's thinking and consequently the design intervention with Ryder, Company A will be discussed first.

6.3.2 Relevant characteristics of Company A and Ryder

Table 6.1 Characteristics of Company A and Ryder

	Company A	**Ryder**
Business sector	Goods	Architecture, construction
Nature of business	Manufacturing, distribution, retail	Professional services
Employees	10,000+	150
Premises, number	1000+	4
Premises, type	Shops, factories, distribution centres, offices	Offices
Locations	Throughout the UK	Newcastle, Liverpool, Glasgow, London

A summary of the relevant characteristics of Company A and Ryder are shown at Table 6.1 above. The differing characteristics of these organisations are relevant as they affected how the researcher approached the organisations, the design of the interventions and how data was collected.

Business sector

This appeared to determine both the role of design within the organisations and the self-perceived design ability of the individual participants.

In Company A's case design was treated as an activity only carried out by certain individuals, such as a shop designer, in the marketing department

and by external graphic design agencies. In Ryder's case the design of buildings was the core activity of the business whilst other activities, such as marketing and accounts, were secondary, supporting activities. These differences led to the researcher taking a different approach with each case both in the initial workshops and subsequent interviews. In the case of Ryder, the researcher was able to talk and ask questions about design whereas in the case of Company A, the researcher had to instead refer to aspects of the design process such as creativity, problem solving and making.

Nearly all of the individual participants from Ryder had studied architecture to a graduate level and identified themselves as being expert designers whilst none of the participants from Company A were explicitly employed in a design role. At the time of planning the initial workshops the researcher and his colleagues had assumed that this may be the case. By the time the researcher was planning the subsequent interventions he knew this to be the case. Accordingly, the researcher and his colleagues considered that the participants from Ryder would be familiar with being asked to design and make artefacts and so made a conscious decision to make the activities more challenging. This was in contrast to Company A where the researcher considered that designing and making artefacts would be likely to be unfamiliar to the participants.

Location

In both cases the central point of contact for the researcher was the head office of each organisation, which both were located in Newcastle upon Tyne, within a mile of the Design School. In both cases the initial workshops were held in the Design School, in large teaching spaces with access to computer, audio and visual equipment. In the case of Company A the subsequent interventions took place on University premises, at their head office and at an independent arts centre in Cheltenham. In the case of Ryder the subsequent intervention took place at their head office. The choice of these settings reflected a mixture of practical issues ('where is most convenient place to gather the participants?') and the specific purpose of each intervention, including whether the

intervention was intended to isolate the participants or to engage the wider organisation.

Nearly all the meetings with Company A and Ryder took place in person and at their offices. These meetings included engagement prior to subsequent interventions, reports following interventions, collaborative meetings, field work observation and interviews. The main exceptions to this were in the case of Company A, where because of their national coverage several of the people interviewed were based in the South-West of England and so interviews were often conducted by video conferencing (Skype and Facetime) and occasionally by telephone.

Size

Despite both organisations being within proximity to the Design School and the researcher building up good personal relationships with many of the participants, the size of each organisation led to a very different approach to contact. Due to the number of employees, all meetings with Company A had to be diarised several days in advance and at the end of each meeting the researcher was escorted back to reception to be signed out of the building. In contrast, almost 100 of Ryders 150 employees were in its head office together with several other businesses who shared the office space. The researcher could come and go as he pleased and at certain points in time was given his own desk space in the office.

Structure

Company A had a clear hierarchical management structure with an executive board, several layers of managers and then employees. They are referred to by the researcher as *senior managers*, *managers* and *employees* respectively.

In contrast Ryder had a more horizontal organisational structure. There was a group of ‘architectural directors/partners’ and a group of ‘associates’ who are referred to by the researcher as *senior managers* and *managers* respectively. Other members of the organisation included architects, design assistants and

members of the business support team, who are referred to by the researcher collectively as *employees*.

6.4 Case introduction: Company A

6.4.1 The research unit

Company A was a UK based national organisation selling goods from its own shops. However, it also manufactured and distributed all its own products and retailed from locations including petrol filling stations, airports and ferry ports. It had over 1000 premises with its head office located in Newcastle.

Company A's Learning and Development department, based in their head office in Newcastle, had recently, since 2010, had a relationship with the Business School at Northumbria University. This involved the Business School delivering a training programme called Strategic Leaders to a group of senior managers from across Company A's different departments. These managers were within the second tier of management at Company A and report directly to the executive board. This training consisted of teaching established models of leadership and management theory for which the group met once a month. Company A used the teaching materials to then deliver the training itself by cascading it down to lower levels of managers.

At that time the researcher had his own historic knowledge of as they had been a client of a law firm he had been employed with until around 2012. Since then the researcher's only point of contact within Company A had retired.

6.4.2 Introduction to the key design interventions

The key design interventions all took the form of the researcher introducing new design practices. There were the four key design interventions: the initial workshop, the map making workshop, the bicycle workshop and the map consultation.

The key design interventions are introduced in turn by presenting:

- An overview including a summary of the context, the subject's expectations

and the researcher's intentions.

- Details of the specific design practices, focusing upon the provocations created by the researcher and the responses made by the participants.

- Photographs of the corresponding artefacts.

6.4.3 Company A: initial workshop

The first key intervention in this case study was an initial workshop held on 9th June 2014. It was attended by 19 senior managers from Company A and held at the Design School. In summary:

Context

In May 2015, the researcher was contacted by the Business School who had seen some local media coverage that referred to the earlier initial workshop held with Ryder. This led to the researcher being invited to run a design workshop for a group of Company A employees who were part of the Strategic Leaders programme.

Subject's expectations

Company A had no prior expectations of the project as they were only told about it upon the initial workshop commencing. Representatives of the Business School said that their motivation for this invitation was that their own programme had 'hit a wall' and that they needed to 'throw the cards up into the air'.

Researcher's intentions

The researcher and his colleagues wanted to introduce the participants to a range of unfamiliar design practices.

The design practices are summarised in the Table 6.2 below.

The artefacts created are shown at Figures 6.5-6.9 below.

Table 6.2 Summary of design practices in Company A's initial workshop

Researcher's provocation	**Participants' response**
Portrait Take it in turns to draw the person sitting next to you using a continuous line technique.	Using black marker pen and A2 foam board the participants had an initial 5 minutes to draw. They were then allowed to colour in and sign the work.
Speculate Consider an artefact, its form function and price.	Touching and lifting the artefact. Group discussion.
Protest poster Create a poster calling for change or highlighting an important organisational issue.	Consideration of a series of printed and mounted Occuprint posters. Working in pairs using coloured paper, pens, newspapers and magazines.
I am a photographer Take a sequence of photographs that tell the story of your life.	Acting separately from the group, individuals were given a digital zoom camera and written instructions. They left the room for 10 minutes to complete the task.
Storytelling Write and illustrate a 39 word story.	Individually, using A4 card, coloured pens and printing blocks. Testing printing blocks and drafting text.
Viewer Watch then discuss a short film.	Watching a TED talk by Ken Robinson, "do schools kill creativity?"

	Group discussion.
Lunch	
Prototype Make a three dimensional prototype of an object that will be a talking point in [various locations].	In groups of 3 and 4 selecting from a wide range of craft materials, sketching, discussing and making.

Figure 6.5 Portraits

Figure 6.6 Protest posters

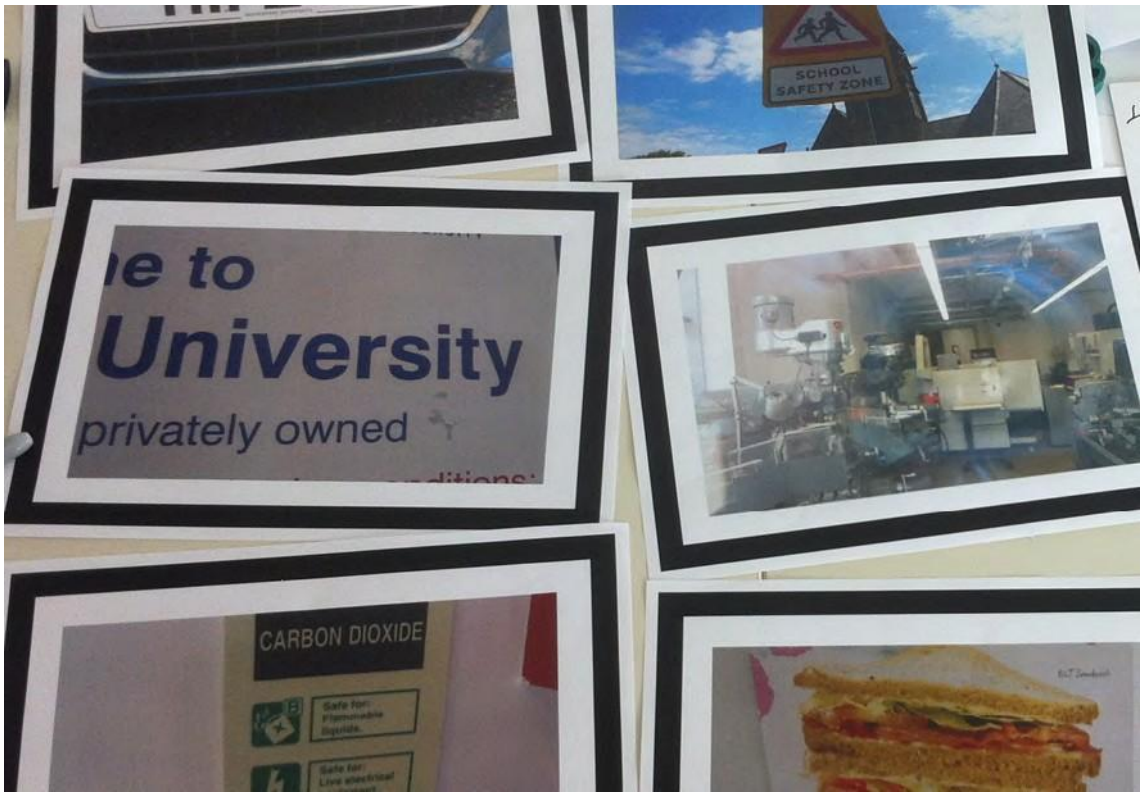


Figure 6.7 I am a photographer

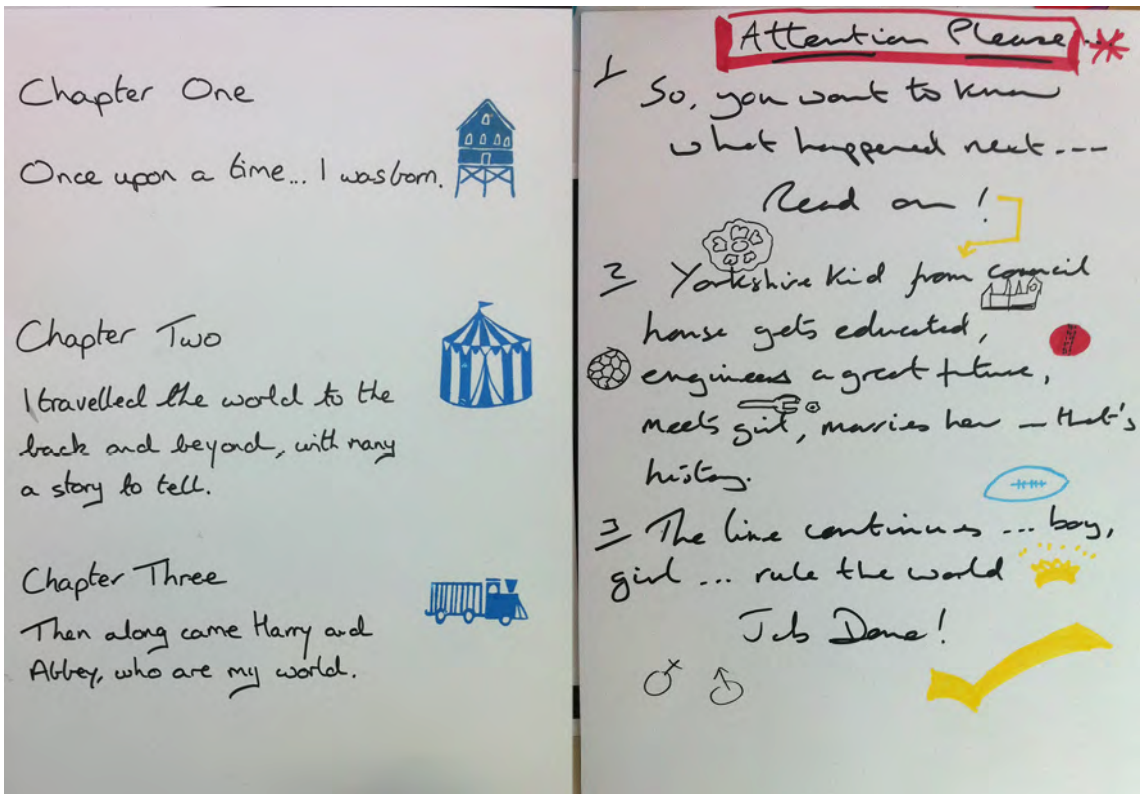


Figure 6.7 Storytelling

Figure 6.8 Choosing materials for the prototypes

Figure 6.9 Prototype

6.4.4 Company A: map making workshop

The second intervention in this case study was a one-day workshop held on 6th February 2015. It was attended by 12 employees from across the organisation and of varying levels of experience. It was held at the Northern Design Centre in Gateshead which is part of Northumbria University. In summary:

Context

Following the initial workshop one of the participants, Diana, introduced the researcher to her colleague Lynda who was responsible for developing a new staff handbook for the organisation.

Subject's expectations

Company A wanted to use a creative workshop to generate new ideas that could be incorporated into the text and visual appearance of a new staff handbook.

Researcher's intentions

The researcher proposed that the staff handbook be reimagined as a series of real and imagined journeys through the Company A landscape, and that this reimagining should be made in the form of a large map.

The design practices are summarised in Table 6.3 below.

The artefacts created are shown at Figures 6.10-6.13 below.

Table 6.3 Summary of design practices in Company A's map making workshop

Researcher's provocation	**Participants' response**
Book of thoughts Complete the notebooks. Questions were vague, such as "the best thing about my job is …"	Cultural probe given to the participants to complete 7 days before the workshop. Individually, writing and sketching.
Portrait Take it in turns to draw the person sitting next to you using a continuous line technique.	In pairs, using black marker pens and foam board, 5 minutes of drawing. Followed by colouring in.
Brief Design and make the beginnings of a physical map of the Company A's landscape and the journeys, both real and imagined that are made through it.	Group discussion and note taking.
Making a mark Take a sentence from the book of thoughts and write it in a long line on the blank map.	Individually, using marker pens, writing directly onto the blank map located on the floor.
Buildings Asked to make buildings for the map.	In pairs, discussing, sketching, selecting materials and making. Then considering relationship with the map and other buildings.
Journeys Plot a network of routes and individual journeys upon them.	Consideration of different maps. In two groups, discussing, sketching,

	selecting materials and making.
Viewer Watch then discuss a short film.	Watching a film by the author Will Self, 'Obsessed With Walking' regarding phychogeography. Group discussion.
Lunch	
Walking Explore the map, respond by plotting real and imagined journeys, creating further artefacts to do so.	Individually, selecting materials, making. Group discussion.
Back to the future Imagine buildings and journeys that might take place in 25 years' time to leave feedback.	Individually, selecting materials, making.
Closing Make a new product and discuss the day.	Individually making models of new products followed by a group discussion.

Figure 6.10 Making a mark

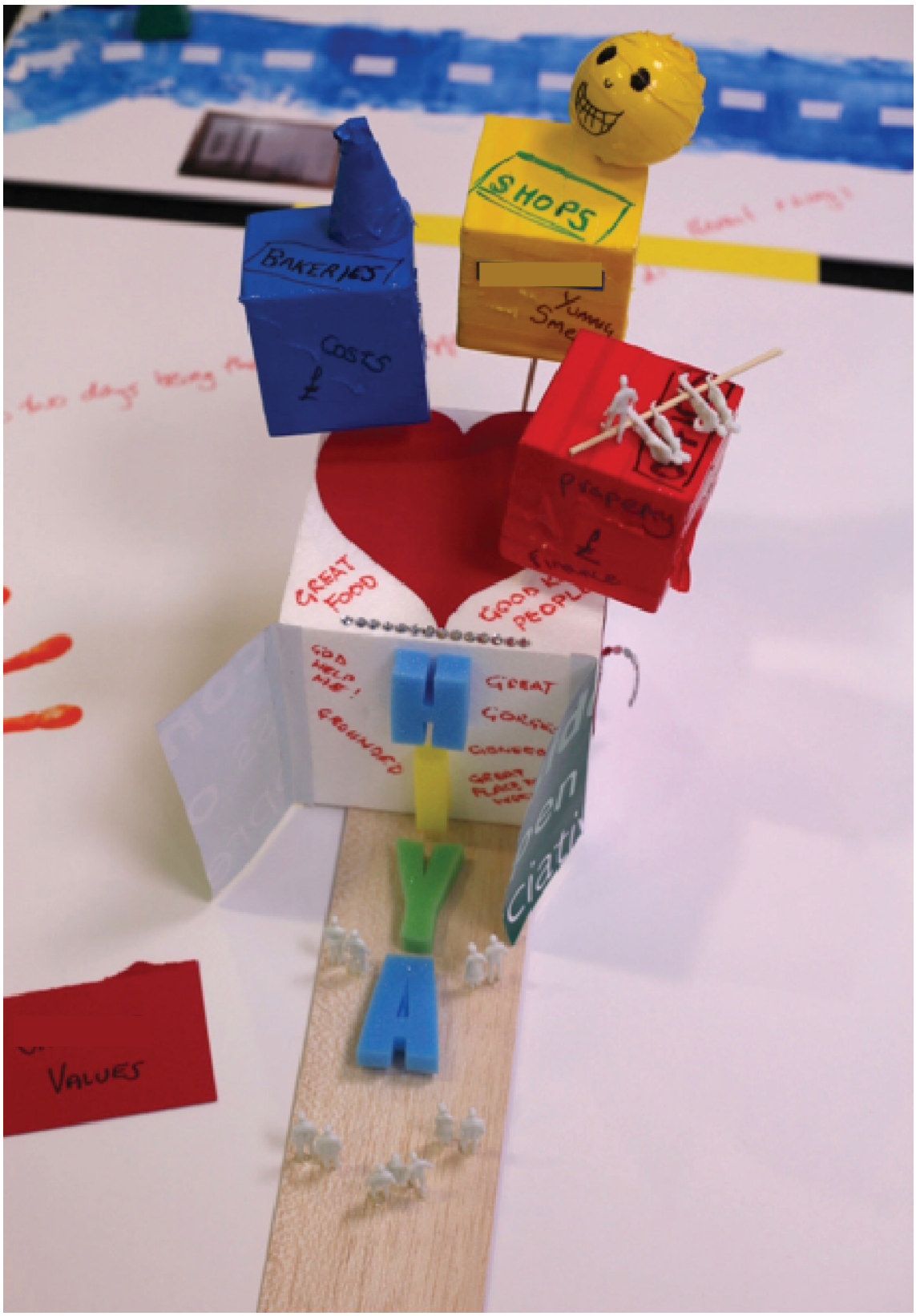


Figure 6.11 A building

Figure 6.12 Making buildings

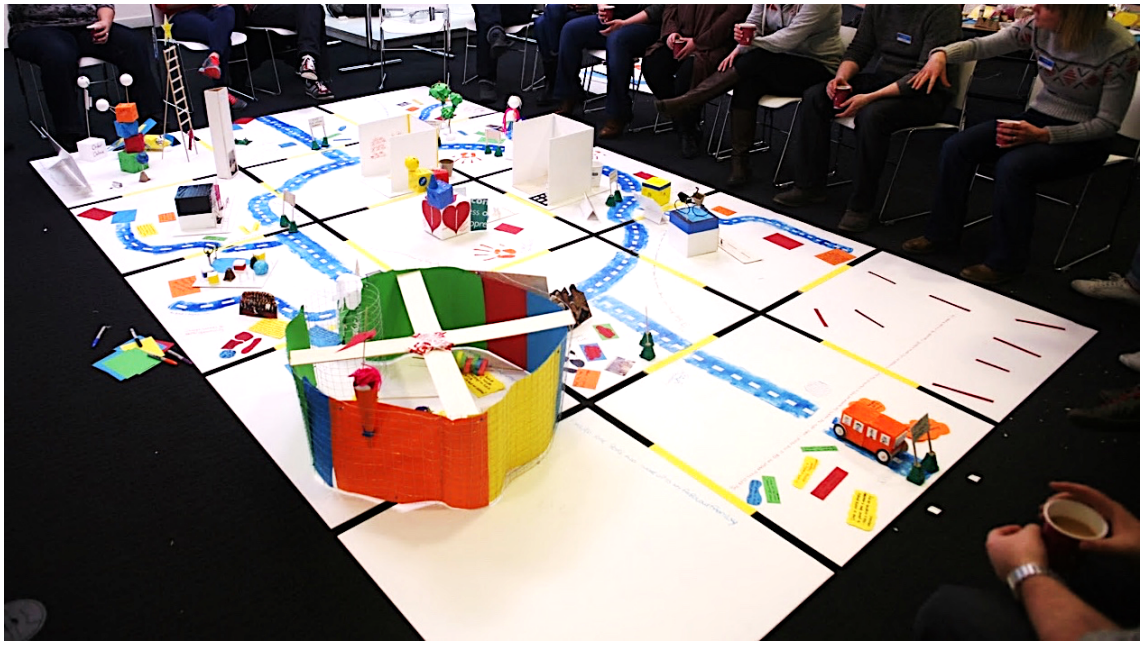


Figure 6.13 Group discussion

6.4.5 Company A: bicycle making workshop

The third intervention in this case study was a one-day workshop held on 30th April 2015: the bicycle making workshop. It was attended by 11 senior retail managers based in the south-west of the UK. It was held at an independent arts centre in Cheltenham. In summary:

Context

Following the initial workshop one of the participants, John-Paul, explained to the researcher that he was in the process of forming a new retail team and would like to hold a team building day.

Subject's expectations

Company A wanted to encourage members of this team to explore new ways of working together. John-Paul agreed that the nature of the design activities would not be disclosed to any of the participants, including him, until the day of the workshop.

Researcher's intentions

The researcher planned a series of increasingly difficult creative tasks culminating in an afternoon making full sized bicycles with moving parts using only paper and card.

The design practices are summarised in the Table 6.4 below.

The artefacts created are shown at Figures 6.14-6.17 below.

Table 6.4 Summary of design practices in Company A's bicycle making workshop

Researcher's provocation	**Participants' response**
Portrait Take it in turns to draw the person sitting next to you using a continuous line technique.	In pairs, using black marker pens and foam board, 5 minutes of drawing. Followed by colouring in.
Protest poster Create a poster calling for change or highlighting an important organisational issue.	Consideration of a Company A poster from the initial workshop. Working in pairs using coloured paper and pens.
Vehicle Consider a model of a bike made as part of the map. Make your own vehicle.	Individually, making using wire and pliers.
Storytelling Write and illustrate a 39 word story about where you will go on your vehicle.	Individually, using A4 card, coloured pens and printing blocks. Testing printing blocks and drafting text.
Viewer Watch then discuss a short film.	Watching a film by designer Dominic Wilcox, 'The reinvention of normal'. Group discussion.
Lunch	
Brief Make a full-size bicycle with moving parts.	In groups of 3 and 4 selecting from a wide range of craft materials, sketching, discussing and making.

Figure 6.14 Creating protest posters

Figure 6.15 Creating wire vehicles

Figure 6.16 Creating paper bicycles

Figure 6.17 A collection of the artefacts created

6.4.6 Company A: map consultation

The fourth intervention in this case study was a consultation upon the map that had been made in the second key intervention and was held during April, May and June 2015. It was attended by 64 employees from across the organisation. It was held in Company A's head office in Newcastle. In summary:

Context

Following making a map Lynda requested that the researcher install the map at their head office. The researcher agreed with Lynda that they would work together to develop a process and methods by which a wider group of employees could engage with and contribute towards the map.

Subject's expectations

Company A wanted to make the map representative of a wider cross section of the organisation. Company A also wanted to find ways of translating the map into new content for the staff handbook.

Researcher's intentions

The researcher sought to develop a process that would allow Lynda and others to facilitate further engagement with the map in ways that would be consistent with the MAP intervention.

The design practices are summarised in Table 6.5 below.

The artefacts created are shown at Figures 6.18-6.22 below.

Table 6.5 Summary of design practices in Company A's map consultation

Researcher's provocation	**Participants' response**
Context Consider the provocations issued in the MAP intervention.	In groups of up to 6 people, read and discuss.
Explore Consider the map, its artefacts and the draft materials from the earlier intervention.	Observing and discussing.
Your turn Make a building or journey.	Individually, using a variety of craft materials and the book of thoughts, making artefacts and adding them to the map.
Extract What can be taken from the map and used in the new staff handbook?	Individually, interpreting artefacts on the map and writing suggestions upon post-it notes.

Figure 6.18 Display made by the researcher explaining context

Figure 6.19 The map and room set up before the first consultation session

Figure 6.20 Materials available to participants

Figure 6.21 Artefacts made in the consultation sessions

Figure 6.22 Insights from the map gathered using post-it notes

6.2.4 Company A interview participants

Set out below are brief profiles of each of the interview participants. As already discussed in the methodology chapter (s.5.5.2) the relevant characteristics of the interviewees were:

- whether they were an expert designer
- familiarity with design practices
- whether design was used overtly in their part of the organisation
- decision making power in the organisation
- access to resources
- access to senior management
- engagement in new design practices

The descriptions are based on responses given by them during interview and represent their circumstances and views during the research period. As explained in the methodology, people's names have been anonymised so that they are not easily recognised by others.

None of the interviewees from Company A were expert designers.

Robert

Robert had worked at Company A for five years and was head of learning and development. His background was in human resources and learning and development at other large corporate organisations. He was responsible for work based learning for all twenty thousand employees. He was the lead contact for the leadership programme run by Northumbria University. Robert had decision making power over his team and had access to senior management as senior manager Jean was his line manager. Robert was familiar with using design practices as made posters to demonstrate some of his ideas which he then shared with his team (s.7.2.4), even though these practices were not overt. He took part in the map consultation workshop.

Jimmy

Jimmy had worked at Company A for twenty-two years, initially as a trainer and then in human resources before becoming head of people on the retail side of the organisation. He managed a team of around one hundred people based around the UK. Jimmy had decision making power over his team and had access to senior management as senior manager Jean was his line manager. Jimmy was not familiar with using design practices. He took part in the initial workshop.

Diana

Diana had worked at Company A for twelve years and was head of rewards and remuneration. At the time of the research study she had recently been given additional responsibility for developing internal policies. Diana had decision making power over a small team and had access to senior management as senior manager Jean was his line manager. Diana was familiar with using design practices as she had experience of working with external design consultancies. She took part in the map making workshop and the map consultation.

John-Paul

John-Paul had worked for Company A for fifteen years and was head of retail operations for one of the four UK regions. He was responsible for the running of over four hundred shops, including finding new locations and refitting existing shops. John-Paul had decision making power over several hundred people and had direct access to senior management having previously been a senior manager. John-Paul was familiar with using design practices as he was involved in designing shop interiors, product development, packaging design and product marketing. He took part in the initial workshop.

Lynda

Lynda had worked for Company A for seven years and was a people and policies manager, managed by Diana. Lynda was directly responsible for developing employee policies, including the staff handbook. Lynda's decision making power related to how she chose to do her job. Her access to senior management was through Diana to Jean. Lynda was familiar with using design practices as she had experience of working with external design consultancies. Lynda took part in the map making workshop and the map consultation.

Jerry

Jerry had worked for Company A for less than one year as a financial accountant. Prior to that he had worked in finance and accountancy for over ten years. He managed six people and his team were responsible for internal accounting within the organisation. Jerry's decision making extended to his team but he had limited access to senior management. Jerry was not familiar with using design practices. He took part in the map making workshop.

Mary

Mary had worked for Company A for fifteen years and was a training manager in the learning and development team. Prior to that she had worked in garment sales. Mary had limited decision making power outside of her own role and her access to senior management was through Robert. Mary was familiar with using design practices as she often created artefacts and encouraged others to do so when delivering training. Mary took part in the map making workshop and the map consultation.

Bob

Bob had worked for Company A for eleven years and was a manager directly responsible for all safety, health and environmental issues. He managed a team of six people and had wide decision making powers in his part of the organisation. He also had direct access to senior management as he was

managed by senior manager Phil. Bob repeatedly expressed a desire to do things differently. Bob was familiar with using design practices as he had done some work with Robert. Bob took part in the map making workshop and the map consultation.

Barbara

Barbara had worked for Company A for fourteen years most recently as a training manager in the learning and development team. She was responsible for delivering training to the retail part of the organisation. Barbara had limited decision making power outside of her own role and her access to senior management was through her manager Robert. Barbara was familiar with using design practices as she often created artefacts and encouraged others to do so when delivering training. Barbara took part in the bicycle workshop and the map making workshop.

Keith

Keith had worked for Company A for eighteen years as a retail operations manager.
He was responsible for managing around fifty shops over which he had decision making power. His access to senior management was through John-Paul. Keith was unfamiliar with using design practices. Despite this he identified himself as being a problem solver. Keith took part in the bicycle workshop.

Vince

Vince had worked for Company A for twenty-five years most recently as retail finance manager for one of the four UK regions. Vince did not work in a team and had limited decision making power outside of his own role. His access to senior management was through his manager Jean-Paul. Vince was unfamiliar with using design practices. Vince took part in the bicycle workshop.

Jean

Jean has worked for Company A for five years and was a senior manager, responsible for people management in the organisation. She was unfamiliar with using design practices. Jean took part in the map making consultation.

Phil

Phil had worked for Company A for five years and was a senior manager, responsible for company secretarial and legal issues. is company secretary and senior lawyer. He is responsible for all regulatory areas of the organisation. He was unfamiliar with using design practices. Phil took part in the map making consultation.

Tom

Tom has worked for Company A for fourteen years, most recently as a senior manager, responsible for business development. His earlier roles had included head of product development. Tom was familiar with using design practices. Tom did not take part in any of the new design practices.

Brent

Brent had worked for Company A for five years and was a senior manager, responsible for business planning and change. His earlier role had been as head of retail. Brent was familiar with using design practices. Brent did not take part in any of the new design practices.

6.4 Case introduction: Ryder Architecture

6.4.1 The research unit

Ryder Architecture ('Ryder') was a UK based national organisation providing professional services in the fields of architecture and construction. Having started as single office in Newcastle upon Tyne in the 1960's it had offices in Newcastle, London, Liverpool and Glasgow and employed 150 people. Like many professional service firms, it was run as a partnership model with the partners fulfilling the roles both of owners and executives.

Ryder enjoyed a good relationship with Northumbria University with many of its graduates recruited from Northumbria University and some of Ryder's senior architects lecturing there from time to time. In 2010 Ryder entered into a formal collaboration with Northumbria with the intention of creating an international centre of excellence for Building Information Modelling (BIM), through the complementary activities of research, education and consultancy. This resulted in a BIM Academy being opened within Northumbria's campus to which both parties contributed staff and funding.

The researcher had first met with the managing director of Ryder, Bill, in September 2013. This was about a commercial project the researcher was working on with a concrete manufacturing company based in Northumberland. The commercial project involved the design of concrete street furniture and followed on from a research project for the researcher's masters studies in early 2013 where the concrete manufacturer had been the subject.

6.4.2 Introduction to the key design interventions

There were two cases of the researcher introducing new design practices in the form of design interventions: the initial workshop and the box task. However, in addition the researcher participated in and observed two examples of Ryder's existing design practices: the design competition and the design review meeting. The researcher considers these to all be key design interventions.

The key design interventions are introduced in turn by presenting:

- An overview including a summary of the context, the subject's expectations and the researcher's intentions.

- Details of the specific design practices, focusing upon the provocations created by the researcher and the responses made by the participants.

- Photographs of the corresponding artefacts.

6.4.3 Ryder: Initial workshop

The first key design intervention in this case study was an initial workshop held on 4th and 5th February 2014 (an afternoon, then the following morning). It was attended by 11 managers from Ryder and held at the Design School. In summary:

Context

In October 2014, the researcher contacted senior manager Bill of Ryder and explained that he was looking for organisations to take part in creative workshops. During these discussions, the researcher was told that as part of Ryder's 60th anniversary activities they were keen to explore how the organisation might develop in the future. This led to the researcher being invited to run a design workshop for a group of Ryder's managers.

Subject's expectations

Ryder's expectations were that the people who participated in the workshop would be able to use the experience, and possibly the artefacts made, to help prepare a report to Ryder's partners to be presented in March 2014. The participants were sent an email a month prior to the workshop by Bill which introduced the theme of 'consider what life at Ryder may be like in 2043' and included a link to a website containing examples of previous projects by the researcher's group of colleagues.

Researcher's intentions

The researcher discussed the purpose of the workshop with a wider group of colleagues, two of whom designed and facilitated the workshop. During these discussions one of the researcher's colleagues expressed an intention to take 'a designerly approach' and to appear 'serious about design'. Another colleague suggested that the point of the workshop should be to produce artefacts and that those artefacts should not be very architectural.

The design practices are summarised in Table 6.6 below and the artefacts created are shown at Figures 6.23-6.24 below.

Table 6.6 Summary of design practices in Ryder's initial workshop

Researcher's provocation	**Participants' response**
Portrait Take it in turns to draw the person sitting next to you using a continuous line technique.	Using black marker pen and A2 foam board the participants had an initial 5 minutes to draw. They were then allowed to colour in and sign the work.
Storytelling Write and illustrate a 39 word story.	Individually, using A4 card, coloured pens and printing blocks. Testing printing blocks and drafting text.
Viewer Watch then discuss a short video presentation.	Watching the Worldometer website which speculates as to future statistics including population growth. Group discussion.
Posters Make a poster speculating upon Ryder's role in 30 years' time.	In groups of 3 and 4 using 3 sheets of A0 card and selecting from a wide range of craft materials, sketching, discussing and making.
Overnight break	
Posters	Continuing to make the posters. Incorporating printed materials obtained during the break.
Presentation	Each group gave a short presentation explaining their poster.

Figure 6.23 Creating the posters

Figure 6.24 Collection of artefacts created

6.4.4 Ryder: Design competition

The second key design intervention in this case study was a design competition that took place over 48 hours between 16th and 18th March 2015 at Ryder's office in Newcastle. The competition was an international event, known as Build Earth Live, into which Ryder, in collaboration with Northumbria's BIM Academy, had entered a team of 30 people. The competition required participants to use building information management to design a new building in a specific location. Ryder took part in this event annually. In summary:

Context

Following the initial workshop one of the participants, Sid, suggested that Ryder may be interested in taking part in a further intervention to promote a culture of making artefacts in the workplace. In the discussions that followed it was agreed that the researcher should participate in and observe some of Ryder's existing design practices before designing a further intervention.

Subject's expectations

Sid's opinion was that this competition would provide an example of a poor making culture. Ryder's expectations were also that the researcher would be a critical presence and would report back to them any observations he had about the process.

Researcher's intentions

The researcher intended to be an active participant in the competition, sitting within the part of the group interested in the design of the building. The researcher would limit his involvement to observing the proceedings, and to asking the other participants who they were, what they were doing and what they thought about the process.

Theses design practices are not summarised in terms of provocations and responses as these were existing design practices. A discussion of these

design practices is given below in the context of existing design practices (s.8.2).

An example of the artefacts created are shown at Figure 6.25 below.

Figure 6.25 Design competition

6.4.5 Ryder: Design review meeting

The third intervention in this case study was a design review meeting that took place on 19th March 2015 at Ryder's office in Newcastle. The meeting lasted all the working day and involved the participants peer reviewing current architectural projects. The meeting was a regular practice that took place once a month. The participants in attendance changed throughout the day and varied between 8 and 4 in total, with at least 1 partner in attendance at any time. The researcher was again to be a participant/observer.

Context

Following the initial workshop one of the participants, Sid, suggested that Ryder may be interested in taking part in a further intervention to promote a culture of making artefacts in the workplace. In the discussions that followed it was agreed that the researcher should observe some of Ryder's existing design processes before designing a further intervention.

Subject's expectations

Sid's opinion was that this meeting would provide an example of a good making culture. Ryder's expectations were also that the researcher would be a critical presence and would report back to them any observations he had about the process.

Researcher's intentions

The researcher intended to be an active participant in the meeting, sitting around the table and joining in discussions with the other participants. The researcher would limit his involvement to observing the meeting and to asking the other participants to explain what was being discussed.

Theses design practices are not summarised in terms of provocations and responses as these were existing design practices. A discussion of these design practices is given below in the context of existing design practices

(s.8.2).

Examples of the artefacts created are shown at Figure 6.26 below.

Figure 6.26 Design review meeting

6.4.6 Ryder: Box task

The fourth intervention in this case study was a model making exercise ("the box task"). On 14th September 2015 12 paper boxes were left in Ryder's offices (9 in Newcastle and 1 each in Glasgow, Liverpool and London) containing a design brief, tools, materials and a notebook. The brief required that each participant make an artefact and record their observations within the following 5 days.

This was followed by a small exhibition the foyer area of Ryder's Newcastle office between 7th and 18th December 2015 and a presentation to the senior management team on 4th February 2016.

Context

Following the second and third design interventions, which involved the researcher participating in and observing existing design processes, it was agreed that the researcher would design a making exercise that would present the participants with an unfamiliar brief and allow for their design processes to be recorded.

Following the task itself it was agreed that the responses should be developed into a small exhibition aimed at sharing the exercise with a wider number of people within the organisation and gathering any comments they had to make.

Subject's expectations

Ryder's main expectation was that the individual participants would learn something from the experience that they could then apply to their existing practices. It was also expected that through the exhibition these experiences would be shared with the wider organisation.

Researcher's intentions

The researcher sought to design an exercise that was unfamiliar, engaging and

would lead to wider discussions between the participants and their colleagues. The researcher was unclear as to what artefacts the participants would make or what those artefacts would be used for.

The design practices are summarised in Table 6.7 below and examples of the artefacts created are shown at Figures 6.23-6.30 below.

Table 6.7 Summary of design practices in Ryder's box task

Researcher's provocation	**Participants' response**
Open me These were the only instructions accompanying the boxes, unless they were opened.	Of the 12 boxes, 10 were opened and 9 were responded to.
Brief The participants were given a fictitious statement regarding the status of "the architect's plan" and asked to make a physical response using the tools and materials contained within the box. Each box had different contents.	The participants made a wide range of different models. These included simply rearranging the materials, abstract models and models of buildings.
Story of making The notebooks asked that the participants recorded this information.	The participants used a mixture of writing and sketching. One participant used collage. An example of a completed notebook is at Appendix I.
Photos A computer memory stick labelled to request 10 photos of their making.	The participants took a wide range of different photographs. These included making the models, themselves, individual elements of

	the models and different views of the model.
Exhibition Visitors to the exhibition were invited to explore images made from the photos and notebooks of all 9 participants, and to leave feedback.	Whilst many visitors did explore the exhibition no-one completed the feedback cards.
Presentation The researcher created a series of graphic representations of the outcomes of the box task.	This initiated an hour-long discussion.

Figure 6.23 A box waiting to be opened

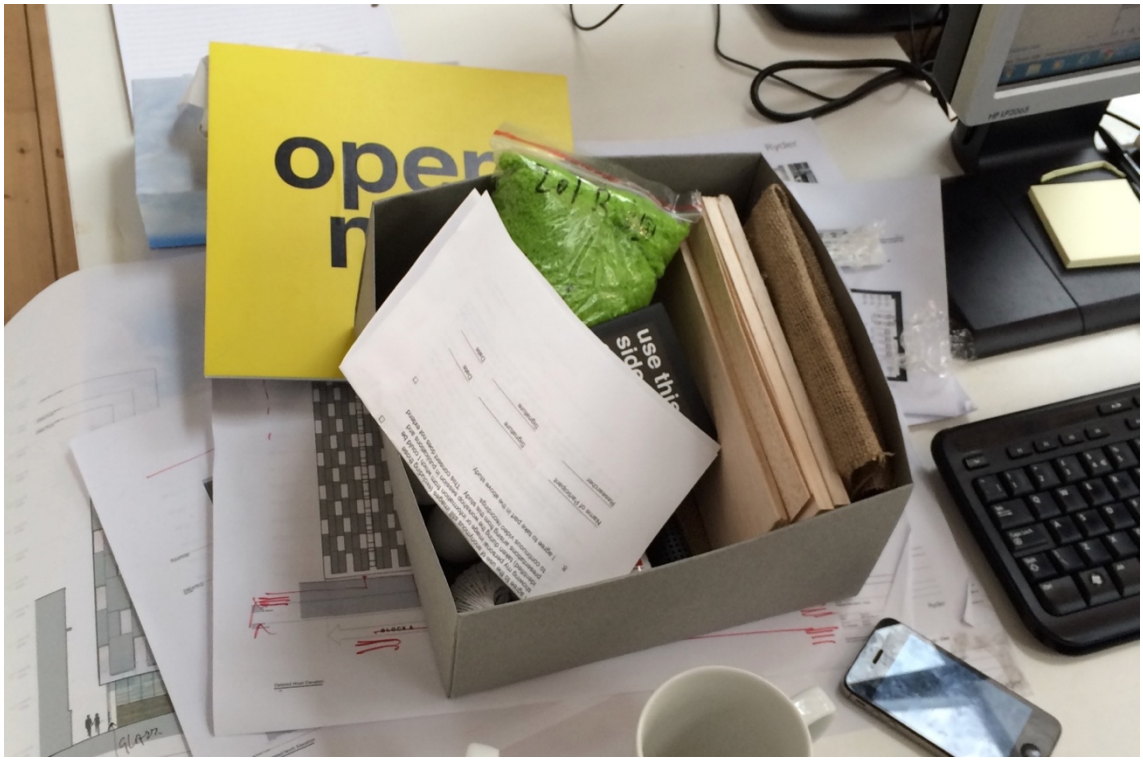


Figure 6.24 An opened box

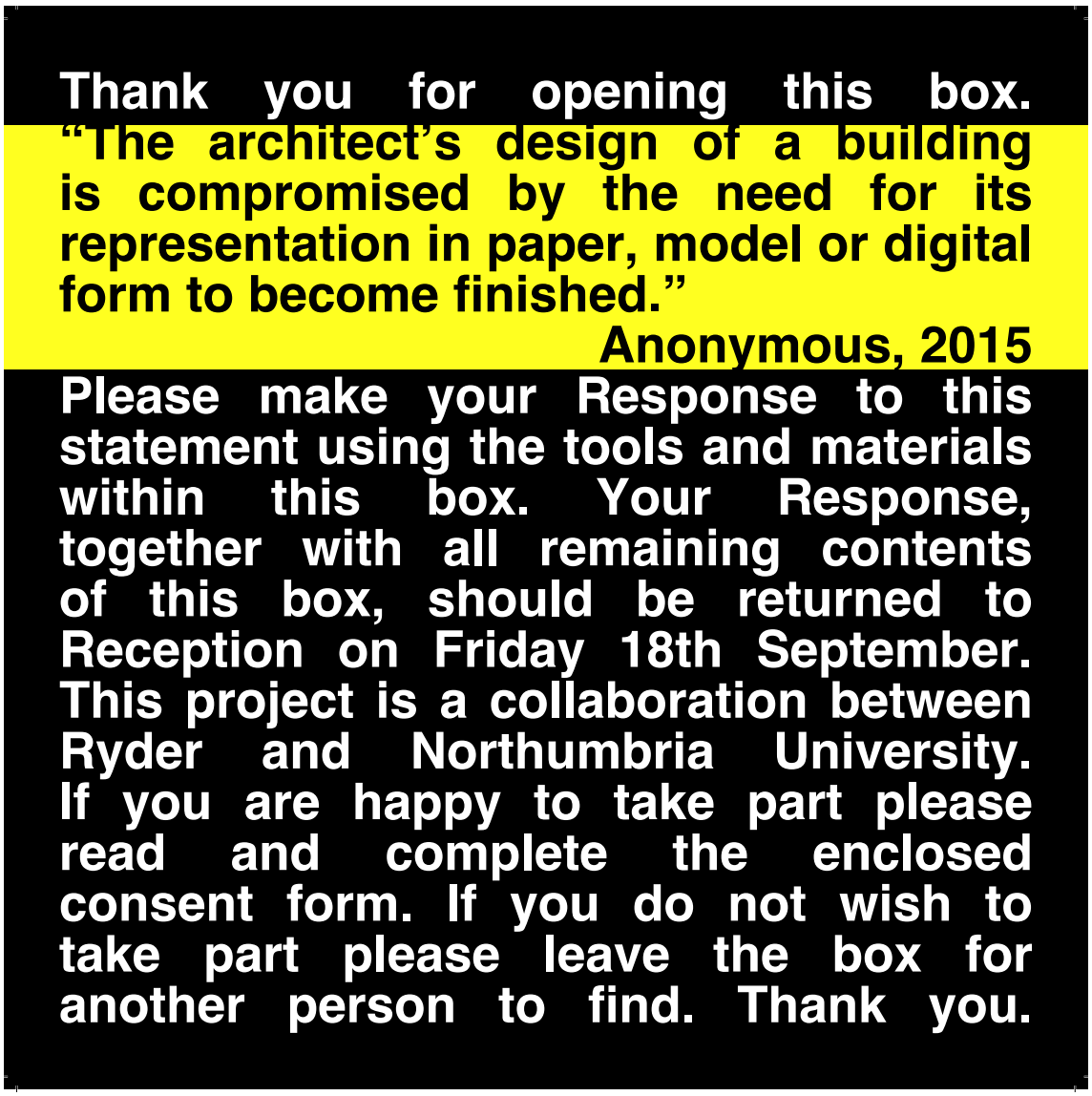


Figure 6.25 The brief provided inside the lid of the boxes

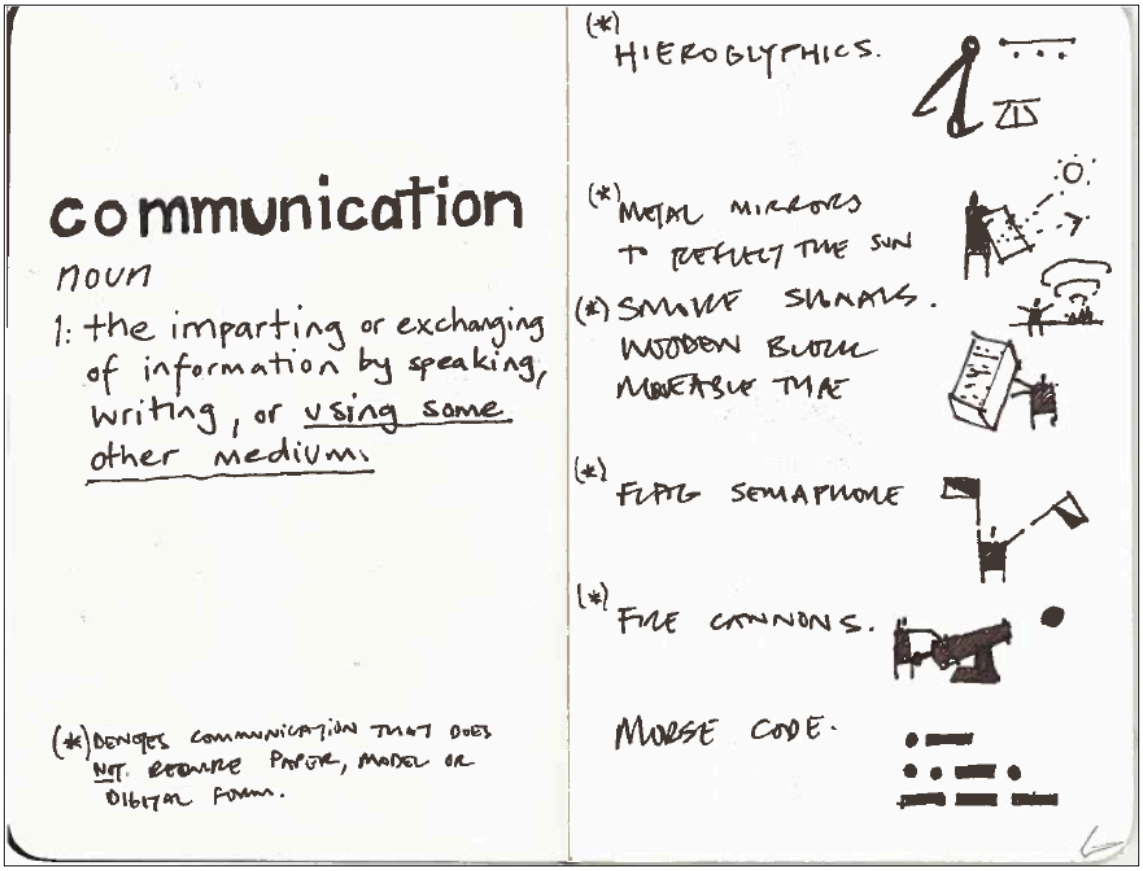


Figure 6.26 Extract from notebooks

Figure 6.27 Photograph of artefact taken by participant

Figure 6.28 Photograph of making taken by participant

Figure 6.29 Introduction to the exhibition

Figure 6.30 Exhibition boards

6.4.7 Ryder: interview participants

Set out below are brief profiles of each of the interview participants. As already discussed in the methodology chapter (s.5.5.2) the relevant characteristics of the interviewees were:

- whether they were an expert designer
- familiarity with design practices
- whether design was used overtly in their part of the organisation
- decision making power in the organisation
- access to resources
- access to senior management
- engagement in new design practices

The descriptions are based on responses given by them during interview and represent their circumstances and views during the research period. As explained in the methodology, people's names have been anonymised so that they are not easily recognised by others.

Nearly all the interviewees from Ryder were expert designers or in the process of becoming so. Due to the size and structure of the organisation all the interviewees had access to senior management.

Bill

Bill had worked at Ryder for over twenty-five years and was a senior manager in a joint executive manager role with Andy. His background was as an engineer. Bill was an expert designer and was familiar with using design practices. Bill took part in the box task, in particular the exhibition and the presentation.

Group of participants in the initial workshop

The group of eleven managers, including Sid, who took part in the initial workshop had worked for Ryder for periods or around five to ten years. They were all expert designers, having trained and practiced as architects, except for one member who worked in a financial role.

Sid

Sid was a manager, working for Ryder as an associate and responsible for a team of architects. Sid was an expert designer having trained as an architect and then having worked at Ryder for ten years. Sid was an expert designer and was familiar with using design practices. Sid took part in the initial workshop before collaborating with the researcher to enable the researcher to participate in existing design practices and creating the box task.

Andy

Andy had worked at Ryder for over twenty-five years and was a senior manager in a joint executive manager role with Bill. His background was as a practising architect. Andy was an expert designer and was familiar with using design practices. Andy took part in the box task acting as a formal sponsor for the design intervention.

Cynthia

Cynthia was part way through a full-time architecture degree and was an employee, spending her one year placement with Ryder. Cynthia was in the process of becoming an expert designer and was familiar with using design practices, helping her team to prepare detailed drawings and plans. Cynthia took part in the box task.

Pat

Pat was an employee, combining working for Ryder as an architectural technologist with a part time degree at Northumbria University. Pat was in the process of becoming an expert designer and was familiar with using design practices which included creating digital models of parts of buildings. Pat took part in the box task.

Vicki

Vicki was an employee, having studied interior architecture and then worked for Ryder in that role for two years. Vicki was in the process of becoming an expert designer and was familiar with using design practices which included drawing and modelling. Vicki had day to day contact with senior management as her mentor was a senior manager. Vicki took part in the box task.

Dennis

Dennis was a senior manager, working as a partner for Ryder. Dennis was an expert designer having both practiced as an architect and having taught architecture at undergraduate level for over 30 years. Dennis took part in the box task, in particular the exhibition and the presentation.

6.5 Case introduction: other cases

The other cases consisted of three organisations that took part in initial workshops during the research period but did not progress to any further interventions. They were as follows:

- On 23rd June 2014 two of the researcher's colleagues ran an initial workshop for 10 employees of Traidcraft. The organisation was a charity in the north-east of England dedicated to promoting fair trade and fighting poverty.

- On 2nd February 2015 the researcher and a colleague ran an initial workshop for 9 employees of Sunderland City Council. The organisation was a local authority in the north-east of England and the participants were part of their senior management team. Sunderland had a relationship with the Business School at Northumbria University which involved a series of events around the theme of innovation.

- On 17th October 2014 the researcher and a colleague ran an initial workshop for 14 employees of Northumbria University. The participants were a mixture of academics and practitioners working in the health and life sciences department.

In each of these cases the design interventions closely followed the format of the initial workshop held with Company A on 9th June 2014.

6.6 Summary

This chapter has introduced each of the two case study organisations, the nature of the key design interventions and the people who were interviewed. In doing so this chapter has developed understanding of the types of people and organisations who participated and the design practices they engaged in.

The following two chapters (ch.7 and ch.8) introduce the data relating to each case study. They do this by using the theoretical lens of communities of design practice, as proposed by the researcher. These chapters also extend the focus of the study beyond the design practices *introduced* by the researcher to include examples of *existing* design practices and those design practices which *emerged* as a result of the design interventions.

Chapter 7

Company A Analysis

7.1 Introduction

This chapter introduces the data that forms the basis of the key findings in the Company A case study. The data is considered using the researcher's conceptual model of communities of design practices (CoDP) and the analysis framework. The researcher has used the prefix '❖' to indicate relevant areas of the CoDP and will highlight specific findings by using italics.

The design practices fell into three categories: examples of existing design practices actively engaged in by Company A at the time of this research study (s.7.2), design practices introduced by the researcher through the interventions (s.7.3) and design practices that emerged from within Company A as a result of the researcher's interventions (s.7.4). Accordingly, in each of these categories the researcher has focused upon the key findings in the following areas:

- ❖ who engaged in the design practices
- ❖ where the design practices were situated within the organisation
- ❖ the role artefacts played
- ❖ the motivation for designing, in terms of personal experience and characteristics, and organisational aims

The key findings from the data show that:

Conditions

- The strategic alignment of design practices to organisational aims was critical.

- Uncertain outcomes required management of risk.
- Sponsors allowed an exploratory approach and access to resources.
- People within the organisation were prepared to take leadership roles and assume responsibility for developing and initiating design practices.
- Understanding of the new design practices required participation by individuals.
- Emergent design practices taking place for a sustained period required a dedicated design space.
- Lack of a coherent design vocabulary was an obstacle to sharing the new design practices more widely.

Characteristics of the new design practices

- Unfamiliar design practices combined with a general lack of design expertise amongst the participants meant that the artefacts were the key factor in developing new thinking.
- Artefacts encouraged collaboration and mediation.
- As design practices shifted from being unfamiliar to familiar the expectations of the outcomes shifted from tangible and familiar towards distinctive.
- The provocative nature of the interventions motivated people to think and act outside of the normal organisational rules.
- Participation lead to the emergence of champions who then enabled further engagement in design practices.

- Sensemaking in relation to complex artefacts was a distinct design practice.

Potential impact

- The interventions helped to introduce a design vocabulary with participants using the term ‘design disruption’ both to describe what they had taken part in and the emergent design practices.

- The introduction of new design practices helped existing communities of practice to become communities of ‘design’ practice.

- The new design practices were complementary to existing ways of doing things and vice versa.

- In some cases, engagement led to the development of insight into how wider organisational change might be achieved.

7.2 Examples of existing design practices

7.2.1 Introduction

During the course of the interviews held as part of this case study a series of examples of existing design practices were described by interviewees. The examples were not exhaustive or representative of the organisation as a whole and an audit of the organisation was outside both the main focus and the scope of this research. However, the interviews with senior managers did go some way towards filling in the gaps and describing the most significant design practices that existed within the organisation.

These examples of existing design practices included shop design (s.7.2.2) and product design (s.7.2.3), the creation of posters by manager Robert in the learning and development team (s.7.2.4) and the development of new processes and policy by senior managers (s.7.2.5).

The development of new processes and policy did not involve the creation of new artefacts and arguably falls outside of the researcher's working definition of design practices offered in Chapter 2. However, it has been included in this section as it helps to shine a light upon the organisation's understanding of design and the existence of a design vocabulary within the organisation.

The use of external designers to develop product styling and marketing is not given as one of the examples of existing design practices as it was not described as being a significant existing design practice by any of the interviewees. It was however described in the context of the design practices that emerged following the design interventions and so is discussed in detail in section 7.4.

7.2.2 Existing design practices: shop design

Figure 7.1 A shop redesigned in 2015

The interview with manager John-Paul, who had previously been head of retail for the whole organisation, provided a comprehensive overview of how retail shops were designed using in-house shop designers. Approximately two hundred shops were refitted or opened every year at that time (such as the one shown in Figure 7.1) and John-Paul spent two days a week in shops observing shop layouts.

❖ Who engaged in the design practices

Whilst the internal designers appeared to have the most expertise in sketching and plan drawing this design practice appeared to be an equal collaboration between manager and designer. It also appeared that the manager was involved in discussing the artefacts (sketches and plans) at every stage of development. This involvement was made easier by the designer being located within the organisation.

It was also relevant that John-Paul was a well-respected manager within the organisation and had previously been a senior manager. He expected the designer to help him achieve his aims.

- Where the design practices were situated within the organisation

This was an established area of design practice within the organisation. The design practices were explicit, widely recognised and focused on product and service development. Also, how the shops looked and were used was explicitly acknowledged, by John-Paul and other members of his team, as being key to the organisation's success.

- The role artefacts played

Sketching and talking as complementary tools

John-Paul explained how during the various stages of artefacts - the sketch, the plan and the revised plan - sketching and talking were complimentary in mediating between the aims of the manager and the expertise of the designer. John-Paul explained how the designer would 'scribble across [the plan] in pen, draw arrows and say, "Move this to here. Move that to there. Add another coffee machine"'.

Existing organisational artefacts were influential

John-Paul referred to a 'brand principle document' to which all shops must comply and which was the starting point in every shop design process.

Prototyping as a means of reducing risk of failure

John-Paul explained how they have a small number of concept shops in which experimental layouts can be tested. This allows a culture of frequent failure to be maintained with the organisation 'prepared to go back and have three or four goes at it until we get it right. Whereas the standard refit, you can't afford to do that.

❖ The motivation for designing

John-Paul explained how he had a wide range of relevant experience including new product development and marketing campaigns. He was also motivated by the organisations stated aim of opening new shops and refitting existing ones.

7.2.3 Existing design practices: product design

In this organisation the products consisted of items of consumable goods that were sold from their retail shops. The design practices described did not include all packaging and marketing as some of this was dealt with by external design agencies.

Senior manager Phil explained how the product development team would start by making a suggestion such as ‘we now need to launch [a new product]’ and that this suggestion would be discussed in the context of what else was available from their competitors on the market and whether it was commercially viable to develop a brief for a new product. Once the brief was established a process of research, development, prototype and trial followed.

Manager John-Paul described his experiences in relation to a specific project where the packaging of existing products was changed in order to make them more relevant to a new market.

- Who engaged in the design practices

These design practices were engaged in by a mix of expert designers and other members of the organisation.

John-Paul’s project involved identifying senior managers and managers within product and packaging departments at the beginning of the project and getting them to engage in the design practice. Accordingly, it was relevant that John-Paul had previously been a senior manager and had the required authority.

- Where the design practices were situated within the organisation

This was an established area of design practice within the organisation, focusing on product development. The design practices were explicit and widely recognised.

- The role artefacts played

Experiencing artefacts

It was important to see competitors' products in person by visiting competitors' shops

Prototyping

Creating samples of packaging enabled consumer groups to test the products and give feedback that led to further iterations of the products.

- The motivation for designing

The development of new products and services was a well known aim within the organisation. This was supported by the existence of a team of people, the product development team, explicitly charged with meeting this aim.

7.2.4 Existing design practices: learning and development posters

Figure 7.2 Manager Robert's most recent poster

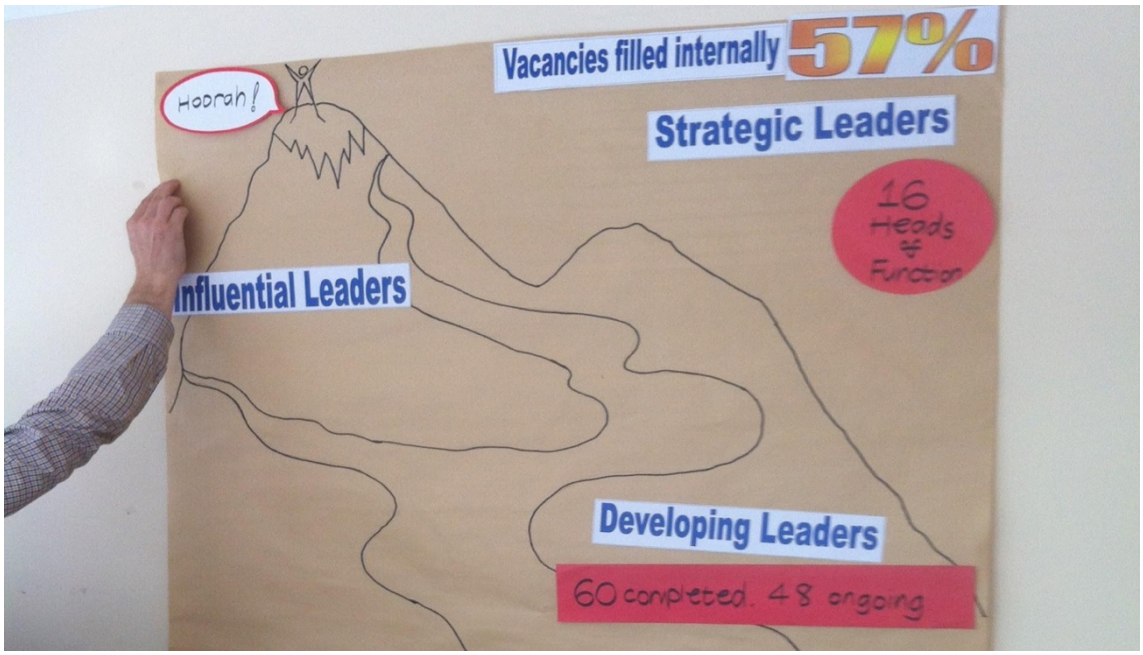


Figure 7.3 Manager Robert's earlier poster

During interviewing Robert, the manager who was head of learning and development, the researcher noticed a large handmade poster on the wall of his office, Figure 7.2, and asked him to explain it. Robert explained that he had made a series of posters, starting two years earlier, and that he used them to help himself and others visualise how individuals throughout the organisation might achieve different learning and development objectives. An earlier poster kept in a store room is shown at Figure 7.3.

- Who engaged in the design practices

These design practices were not engaged in by expert designers.

It appeared to be important that the creator of the poster, Robert, was a team leader as it allowed him regular opportunities to use the poster with the members of his team.

- Where the design practices were situated within the organisation

This was an established area of design practice within the organisation and related to developing processes to meet learning and development needs. Whilst the design practices were explicit they were not widely recognised.

Unfamiliar design practices

Whist Robert's team actively engaged with creating and using the poster, Robert explained that other people, outside his team, 'may not buy into it the same way'. The example he gave was that several people had asked him 'Why don't you just put that on the PowerPoint slide?' Arguably this response may have been because this design practice was not a recognised way of doing things, or process, within the wider organisation. Mary, a member of Robert's team, confirmed that whilst she would 'communicate in pictures' with Robert it did not extend outside of their team.

Lack of a design vocabulary

Robert's description of creating and using the posters suggested that it was a valuable activity however he was unable to describe it in a way that would enable it to be discussed in the wider organisation: he described the posters as 'just words with colour' and that using the poster was not the same thing as 'idea generation'.

- ❖ The role artefacts played

Experiencing artefacts

Robert explained that he liked 'picking up and touching things as opposed to just doing it on a computer' and compared it to the difference between a preference for a Kindle or books.

It was easy to change

As its creator Robert found that it was 'easier to move things around ... than on the electronic version. I just think I rub that one off and then I write it out again ... That for me is an easier way'. This ease of use extended to his team who 'pick things up off [the poster] so that's like our plan'. Robert also explained that the poster had changed significantly about two years earlier when the new chief executive had changed organisational strategy.

The artefact's appearance encouraged participation

When the researcher pointed out that the poster was crumpled and scruffy Robert argued that this was 'a good thing' because it showed people that he had 'picked it up and taken it and used it'. Robert explained that when other people started using the poster, by writing on it and adding more pieces of paper, the underlying learning and development objectives - as opposed to the poster itself - began to belong to the participants and not just him.

- The motivation for designing

Individual rather than organisational experience

Robert explained that whilst the learning and development team had always aimed to develop ‘creativity, imagination [and] problem solving’ he and the team had ‘no real skill or expertise or training in that’ and that the training they delivered was ‘cobbled together’. His motivation came from research and reading he had undertaken himself. He had also made posters in all the other organisations he had worked at. This lack of confidence and support was evident when he described visiting the map consultation and talking to the researcher as reassuring him that his training on creativity ‘created benefit for people’.

Lack of a design vocabulary

Robert believed his posters were beneficial and described the value of creating artefacts as ‘keeping things alive’, by which he meant ideas. However, he still found it difficult to articulate why he took that approach, describing it as ‘just the way that I think’.

7.2.5 Existing design practices: process and policy

Figure 7.4 Business model diagram, 2017

During the interviews with senior managers, in particular Brent, Tom, Phil and Jean, discussions took place, using the Danish Design Ladder diagram (Kretzschmar, 2003) as a prompt, as to the role of design within the organisation. The senior managers claimed that design was used by senior management to develop new processes and policy for the organisation. What they described did not involve any material experience through the creation of artefacts and therefore falls outside of the researcher's working definition of design practices as outlined in Chapter 2. However, analysis of these practices

has been included as they are relevant to how design practices are understood within the organisation. Accordingly, these activities are simply referred to as 'practices.'

Brent explained how the practice used for developing new processes involved engaging external consultants who would then gather information regarding the processes used by other comparable organisations. These processes ranged from high level activities such as how they sold products to lower level processes such as how a machine might be operated.

The practice used for developing new policy was like that for processes. External consultants were brought in to carry out initial research and report back before discussion by senior managers and out of those discussions new policy 'evolved'.

- Who engaged in the practices

These activities were engaged in by members working with external management consultants. Managers and senior managers were engaged in the examples given to the researcher. However, no-one was identified as being responsible for implementing design practices within these activities and there were no expert designers engaged.

- Where the practices were situated within the organisation

These were established areas of activity within the organisation and related to developing new processes and policy. The activities were explicit and recognised by managers and senior managers. In particular, they were familiar and were understood by the senior managers to involve design and creativity.

Use of a design vocabulary

Brent explained how the development of new processes involved 'high level design' and 'detail design' and that it was concerned with 'designing process' using 'design methods'. When explaining what the 'design methods' were Brent

stated that ‘90 per cent of the method we use is discussion’.

Although Brent did not use the term ‘design’ to describe the practice used to develop policy he did repeatedly refer to it being a creative process. When describing the discussions between senior managers he stated that:

> we do get quite creative in those sessions, and I don’t mean that by saying we come up with the next Dyson [vacuum cleaner] ... But we do get creative in the way we get to the priorities that we ought to deliver, and we’re also quite creative in keeping as much on the list as we possibly can.

The researcher’s understanding of these comments is that senior managers understood ‘design’ and ‘creativity’ to have similar meanings and that in fact they meant to be creative.

- The role artefacts played

The creation of artefacts did not appear to play an explicit role in the development of process or policy within the organisation. The Company A business model diagram (fig. 7.5), taken from the corporate section of their website, is simply a graphic representation of a number of decisions that have been made as opposed to an artefact created as part of the development process.

Brent confirmed that these practices did not involve creating or using artefacts. When the researcher asked what they did with the information gathered by external management consultants Brent replied:

> Now how is [the development of processes] done? I can certainly confirm it’s not done by building things. It’s done by probably lots of people who are really quite bored with what they do, sitting in rooms trying to crunch through lots of spreadsheets and Gantt charts and all of that sort of stuff as well. So it will largely be data driven and it will largely be, if we get it right, small evolutions on predetermined processes.

- The motivation for using these practices

Senior Manager Tom described how the senior managers use of these

practices was motivated by a shared feeling of ‘restless dissatisfaction’. He explained that this meant that even when they were doing well they always looked for ways to improve.

7.3 Design practices introduced by the researcher

7.3.1 Introduction

Through the key design interventions, discussed in Chapter 6, the researcher introduced a series of design practices to Company A which people actively engaged with. These design practices consisted of the initial workshop (s.7.3.2), the bicycle workshop (s.7.3.3), the map making workshop (s.7.3.4) and the map making consultation (s.7.3.5). Whilst the initial workshop and the bicycle workshop were intended to support an existing leadership development programme and team development respectively, the map making workshop and consultation were both intended to develop new products and services in the form of a staff handbook.

7.3.2 Introduced design practices: initial workshop

Figure 7.5 Participants choosing materials during the initial workshop

The context for the initial workshop was that it was an adjunctive activity to an ongoing leadership programme being delivered by Northumbria University's Business School to Company A.

Following the initial workshop several interviews took place with people who had participated. These included managers John-Paul, Jimmy and Diana.

- ❖ Who engaged in the design practices

These design practices were engaged in by a group of managers from within the organisation working with external expert designers, in the form of the researcher and his colleague, who were responsible for implementing the design practices.

❖ Where the design practices were situated within the organisation

This was not an established area of design practice within the organisation or within the context of the leadership programme. The design practices were unfamiliar both to the individual participants and to the wider organisation.

Unfamiliarity

The initial workshop took place in a large teaching room within the Design School at Northumbria University. The researcher noted that the participants were nervous when they first entered the room. As the various briefs were issued people initially approached the materials made available to them - arranged on tables along one side of the room - with caution. As the workshop progressed, and particularly after the lunch break, people became more confident and at ease in both selecting materials, as shown in Figure 7.6, and arranging the room's furniture to suit their activities. John-Paul noted this when he said:

> So we get there and then we wander off to this room full of all these different colours and paper and all that sort of stuff, at first I was a bit wary of it to be honest. I felt a bit uncomfortable because I'm not an artist, I can't draw and the first thing that he got us to do was to sit with somebody and draw a picture of them. Actually I really struggled with that bit but as the day evolved, I think I got more and more into it.

❖ The role artefacts played

Artefacts encouraged collaboration

John-Paul noted that the act of creating artefacts, or 'putting stuff together', brought a group of people who did not usually work together into the same physical and mental place. John-Paul described this as having 'harnessed [their] ideas together' and contrasted it with the usual difficulty of getting agreement from a number of different people. John-Paul gave an example based upon the activity that involved creating protest posters: 'I'd have one idea and the person I was working with may have another and it's about how you come to a common agreement to get your message across'.

Considering artefacts inspired new thinking

Diana described how during the workshop she had been looking through newspapers and magazines for images and how an image ‘sparks something else off in your head’. She compared this to their usual way of doing things which was to only think about the existing thing when trying to create a new thing.

Creating artefacts made ideas tangible

John-Paul described how ideas were more valuable if they were made into a ‘tangible thing’. John-Paul explained that the value of a physical artefact was that it enabled people to ‘break down barriers’ between themselves and others.

Creating artefacts did not require technical expertise

When interviewed Diana repeatedly expressed her opinion that she was not creative and did not possess expertise in making things. However, she noted that by the end of the workshop, reflecting upon the artefacts that had been created she realised ‘how creative [she was] without having to be good at drawing’.

- The motivation for designing

Collaboration encouraged engagement

The researcher asked the participants to take part in several activities by issuing briefs for the creation of several different artefacts (detailed in Chapter 6). The participants responded by working individually and in groups of two, three and four people. Both John-Paul and Jimmy placed emphasis on this collaborative approach, explaining that they had found this aspect of the design practices had encouraged positive engagement. Jimmy said the following:

> We ... got a real buzz and it illustrates dead simple things about learning and about organisations that when people feel engaged in an idea, they can do all kinds of wonderful things. Just listening to other people and feeding off them, it's dead simple stuff that the sum of two or three people is much greater than the sum of two or three people just by the fact that you trigger ideas ... I had a real identity. There's a lesson about replicating that in everyday work environment.

Decision making and managing were important to designing

Towards the end of the workshop the participants formed groups of four in order to create three dimensional models. John-Paul explained that as his group had several ideas the process included making decisions about what to do and then managing and influencing other people.

7.3.3 Introduced design practices: bicycle workshop

Figure 7.6 Making paper bicycles in the arts centre building

❖ Who engaged in the design practices

These design practices were engaged in by a group of managers of groups of retail shops within the organisation working with external expert designers, in the form of the researcher, who was responsible for implementing the design practices. None of the participants were expert designers.

❖ Where the design practices were situated within the organisation

This was not an established area of design practice within the organisation. The design practices were unfamiliar to the individual participants with the exception of manager John-Paul who had taken part in the initial workshop and who had commissioned the bicycle workshop.

Unfamiliarity

In common with the initial workshop, the bicycle workshop took place in an

unfamiliar location outside of the organisation. In this case it was an independent arts centre in Cheltenham, as shown in Figure 7.7. Manager John-Paul had suggested that the workshop take place in a hotel conference room in Cheltenham but the researcher argued that it would not be suitable and instead booked a nearby independent arts centre. Keith described himself as being 'shocked' on entering the arts centre because it was so different to the type of venues they usually used for team events: 'The whole setup and vibe of the room was different. The thing that struck me, as the training got underway, was that it was informal'.

Design vocabulary

John-Paul participated in the earlier initial workshop and then during his interview inquired whether the researcher could run a 'team building' workshop for his recently formed retail team. John-Paul subsequently participated in the bicycle workshop. This represented a significant change to how the design practices were situated as John-Paul introduced unfamiliar vocabulary to the other participants by telling them they would be attending a 'disruptive design workshop'. Vince explained how this had affected him:

> we had very, very little information about what this day was going to be all about. John-Paul had briefed us … it's something to do with team building, but it's titled 'disruption day'. That's about all we had from John-Paul. So in my own mind I was thinking, "Well, are we going to be given out of the box challenges? Something that we're not used to doing?"

❖ The role artefacts played

Initial focus was on the outcomes

At the beginning of the workshop some of the participants were focused upon the visual appearance of the artefacts they had created whilst finding the process of creating them difficult. Vince explained his experience of the first activity which involved drawing a portrait of one of his colleagues:

> because I do like art, and I've done some artwork and paintings, and I thought this is going to be a breeze for me. But when you said, "You

> can't remove the pencil from the paper". I really became unstuck. I was trying to fight that natural way that I'd been used to drawing and sketching, et cetera, and in the end my picture was quite grotesque, which disappointed me really…

Creating artefacts generated a perception of value

The researcher noted that the participants treated the artefacts they had created with great care and took time to consider how to arrange them when asked to. This sense of care was particularly evident at the very end of the workshop when the foam board bicycles had been build: one group of participants spent time repairing their bicycle whilst another group took theirs home with them. Vince explained that he was 'very proud' of the penny farthing style bicycle his group had built and that this was because it was different to the other groups' bicycles and 'better' than he expected it to be.

Creating artefacts enabled an inquiry into the organisation

The participants were asked to create protest posters that drew attention to contentious issues within the organisation. During the workshop the researcher noted many of the participants discussing the posters and questioning how these issues could be raised within the organisation. During the interviews both Vince and Keith suggested that the issues raised in the posters were potentially valuable to the organisation. Vince suggested that if the issues raised in the posters could be turned into statements of 'values' they 'could be useful within the business'.

Artefacts acted as a mediator between people

Throughout the bicycle workshop the researcher noted that people had widely differing views as to what artefacts they should make and how they should make them. During the group activities this led to several arguments. These arguments were resolved through discussion, sketching, demonstrating how the materials could be used and, in one case, through additional artefacts being created. During the protest poster activity John-Paul and Keith argued about how the views of customers should be portrayed. Keith explained how in order

to resolve their difference of opinion he had ‘helped [John-Paul] to create something different’ and that he had found that satisfying.

- The motivation for designing

Conflict with organisational aims

The only task during the bicycle workshop that related directly to Company A was creating protest posters. The brief was for people to create posters that highlighted an organisational issue they felt strongly about. Manager Keith explained that the poster task in particular had motivated him because of the direct link back to Company A’s values. Keith described feeling passionately about the issue he had chosen, saying ‘We’ve got to do something about it’. Company A subsequently requested that the researcher omit the details of Keith’s poster from this thesis.

An opportunity to work outside of established policy

Manager Vince described how during the poster making activity the brief was ‘a bit radical’ and provided the ‘seed’ for an alternative to the usual, or ‘standard’, organisational communications. He explained that as managers they usually had to ‘curtail and hold some of [their] emotions and, possibly, what we really think of people’. When asked what was holding them back he identified the organisation’s core values, including ‘respect and honesty’. He explained that ‘sometimes working within those values may hold back some of the way you say things really’.

Participation and sharing were key to engagement

Whilst John-Paul’s articulation of his prior experience of the initial workshop - as simply ‘design disruption’ - may have been intriguing to others it is also symptomatic of a difficulty in articulating these forms of design practices. Vince and Keith both described how following the bicycle workshop they struggled to share their experience with others. Vince explained that because he did not directly manage a team of people he was unable to implement any of the

design practices by introducing them to team members as part of a ‘team day’, suggesting he would have ‘adopted one or more’ of the design practices. In the absence of a team Vince attempted to share his experiences with other colleagues. On telling a pair of finance clerks about the day he explained: ‘It was strange to see their reaction when I said that we made a bike out of board, et cetera. It was, “Is that how you always spend your days?”’ Vince had also ‘shared the activities’ with his line manager with a view to using the design practices again but had not received ‘any definite response’. Vince’s overview of these difficulties was that:

> you have to be involved in it really to grasp what it brings to the table ... I did want to share what I’d experienced with people, but unfortunately there wasn’t a lot of people who wanted to share what I was saying.

Keith had a similar experience when trying to explain it to a colleague immediately after the workshop: he found it ‘quite difficult to articulate’.

The emphasis on participation was also supported by Barbara. Barbara had originally intended to sit in on the bicycle workshop as an observer but on the day had participated fully. When asked about this Barbara said that she was ‘really excited by that [change of role] because I think you learn more by being a participant’.

7.3.4 Introduced design practices: map making workshop

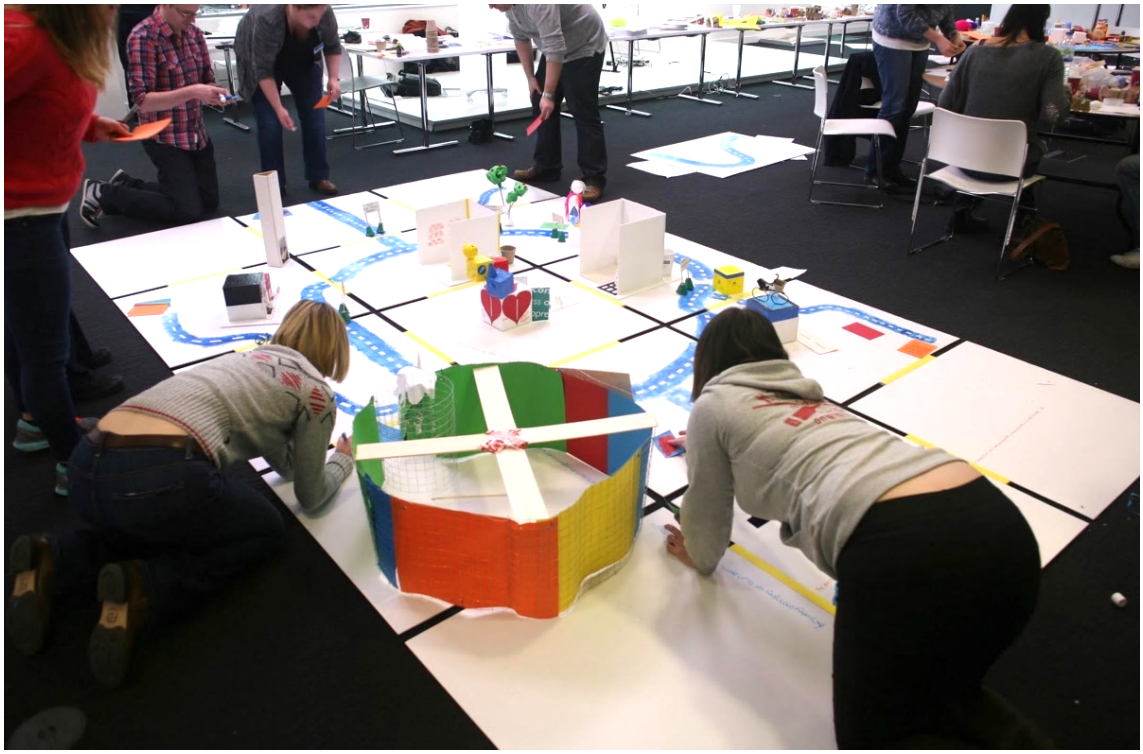


Figure 7.7 An image taken from the stop motion video of the workshop

❖ Who engaged in the design practices

These design practices were engaged in by a group of managers and employees within the organisation working with external expert designers, in the form of the researcher and his colleagues, who were responsible for implementing the design practices. The participants from Company A represented a cross section of the organisation both in terms of seniority and department, and had been chosen by manager Lynda who had commissioned the workshop. None of them were expert designers.

❖ Where the design practices were situated within the organisation

This was not an established area of design practice within the organisation. The design practices were unfamiliar both to the individual participants, with the exception of manager Diana who had participated in the initial workshop.

In common with the initial workshop, the bicycle workshop took place in an

unfamiliar location outside of the organisation. In this case, it was the Northern Design Centre in Gateshead, as shown in Figure 7.8.

Unfamiliarity

For many of the participants the activities represented new ways of doing things. However, several of the participants also described it as a new way of thinking. Jerry was one of the most junior participants to attend the workshop and found the workshop different to anything he had experienced before:

> It's nothing like any kind of training I've done before. I've never had to create anything quite as physical before in a training session. It kind of made you almost think about things in a different way. It's the first time I've had to kind of… it's almost using different skills to create something as opposed to starting with a pen and paper or a previous document.

Jerry also differentiated it from activities that did not involve creating artefacts – 'sitting round a table pitching ideas' - and suggested it led to a different 'kind of response' from people.

Managing risk was important to introducing new design practices

Lynda was part of the People department, responsible for human resources across the organisation. The interviews with Lynda, Diana, her team leader and Jean, the department leader, did not indicate any design practices being actively used in that part of the organisation. Accordingly, the map making workshop represented a significant change for that part of the organisation and a risk for Lynda's reputation. Lynda described initially being concerned about risk and consciously adopting a role focused on obtaining 'meaningful', 'tangible' and 'deliverable' outcomes so that the project would gain 'credibility' within the organisation.

❖ The role of artefacts

The process of creating artefacts was difficult to explain

During the map making workshop the participants were issued a series of briefs

by the researcher - each one intended to create different artefacts that would be placed on the map and would relate to artefacts already on the map. Throughout the day the participants responded enthusiastically and quickly. During the interviews that followed Bob explained that he found it hard to understand the decision making that had led to different artefacts being made: 'how at the end of [the process] you ended up with [the artefacts] you had, trying to talk somebody else through that is quite a difficult thing to do'.

Artefacts suggested alternative courses of action

The map made during the workshop was complex and contained a diverse range of individual artefacts, consisting of different forms, images and writing. Whilst these were intended to help progress the development of a new staff handbook they also engaged other organisational issues. Mary connected some of the artefacts, or 'things', in particular the roads and road signs, to the organisations proposed move from three separate head offices to a single head office, saying: 'if we were designing from scratch we could just use all those things that are so important to us to ... inform the actual new building'.

The artefacts provoked discussion between participants

As the workshop progressed, and more artefacts were added to the map, more discussion took place between the participants. The researcher observed that these discussions were predominantly about the relationship between different artefacts. Bob described these discussions as not being about individual artefacts being made but about the relationship between artefacts: 'it started to become more around, "Right, I've got an opinion on what you're doing there, I've got a thought that I think we need to add into that."' Bob noted that this process was made 'very easy' because people within the organisation are encouraged to give and receive opinions.

The artefacts provoked individual thinking

Bob explained that while the wider map was interesting, 'your bit was still very pertinent to yourself'. He described this thought process as including the

question of ‘where do I fit?’ in relation to the artefacts. These thoughts were only shared with other participants by talking to them.

❖ The motivation for designing

Clear organisational aim

There was a clear aim, by Lynda’s team, to develop a new staff handbook. As senior manager Jean explained, she had been pushing the team hard to ‘get the handbook changed, get the handbook changed, get the handbook changed’. There was also an aim for the staff handbook to have new graphic content. Jean had been inspired by seeing another organisations handbook that featured images similar to the Mr Men series of children’s illustrated books.

7.3.5 Introduced design practices: map consultation

Figure 7.8 The map installed in Company A's head office as part of the consultation

- Who engaged in the design practices

These design practices were engaged in by a group of people from within the organisation initially working with an external expert designer, in the form of the researcher. Manager Lynda, was responsible for implementing the design practices. The participants from Company A represented a cross section of the organisation both in terms of seniority and department, and had been chosen by Lynda.

The researcher and Lynda collaborated in order to implement these design practices. This consisted of developing a process for how participants would experience the map and make further artefacts. Lynda then facilitated a series of workshops with groups of participants. Managers Bob, Mary and Diana each took on Lynda's role by facilitating a workshop with their own teams. The participants represented all departments within the organisation and were invited by Lynda. None of the participants were expert designers.

Responsibility moved from the researcher to Lynda. The transition from a collaborative process involving the researcher to a process implemented by Lynda was reflected in how Lynda viewed her role. Lynda saw herself as being responsible for decision making about the process. This was evident in her deciding how to encourage participants to create artefacts using the materials provided and making changes to the process itself. Whilst Lynda did not go so far as identifying herself as a designer she did acknowledge a change to her role and becoming the person who said 'look what you can make with a few pipe cleaners'.

- Where the design practices are situated within the organisation

This was not an established area of design practice within the organisation. The design practices were unfamiliar both to the majority of individual participants with the exception of managers Lynda, Diana, Mary and Bob who had participated in the map making workshop.

Engaging sponsors was important to introducing new design practices

The map consultation required considerable use of organisational assets, in particular Lynda's time, the participants' time and the physical space within the office. Accordingly, Lynda consciously engaged internal stakeholders to support it. To engage managers within the organisation Lynda invited them to visit the map and showed them a stop motion film the researcher had made of the map making workshop. Lynda also identified manager Diana and senior manager Jean as being the project sponsors. Diana, as Lynda's line manager, had given her the 'freedom' to try 'something new and a bit different'. Lynda attributed Diana's attitude to her having taken part in the initial workshop and the map making workshop. Jean, as head of that part of the organisation was ultimately responsible for allowing the map consultation to proceed. Lynda described Jean as 'a really important person to influence' and sought to do this by making sure that Jean's team was the first one to take part in the consultation.

Unfamiliarity

The map consultation attempted to engage participants representing all departments within the organisation. However, several people commented that they did not understand how it would lead to a tangible outcome. Senior manager Phil said: 'It was a different way of doing things but I'm not quite sure I understand how it gets to an end point'.

Familiarity

Most of the time spent developing the process for the map consultation concerned how the participants would articulate what information from the map was important. It was decided that rather than asking people to engage in another unfamiliar activity they would instead be asked to write their ideas on post-it notes, a familiar activity throughout the organisation. Mary described the effect of this in relation to the group of participants she facilitated:

> it really clicked when we got the post-its and it's like, what of this [artefact] can be used, what's important to you to be in? ... And that was perhaps more within people's comfort zones, or made the link more clearly.

- The role artefacts played

The visual aspect of the artefacts was impactful

Many of the people who took part in the map making consultation expressed surprise as to the map's size and the number of individual artefacts it contained. Robert described his reaction in terms of being able to see the connections between the different ideas people had expressed:

> When I see that, that visual representation, I can then see that that bit is linked to that bit and that bit is linked to that bit. Maybe it's just aided by the fact that it's three dimensional and not just a picture on a piece of paper. It just allows me to see how it all links together really, really well as opposed to just seeing words written on a document ... Had we approached that in terms of let's brainstorm some ideas, somebody get up the front with a flip chart pen, we may have ended up with some of the same things. But in order to sell it to me, it wouldn't have had the same impact. So I relate to that in terms of that's just a very, very powerful tool to sell it.

Mary made very similar comments.

The artefacts encouraged engagement through a sense of ownership

The map led to two distinct forms of ownership in participants: firstly, in respect of artefacts they had made and, secondly, by relating to artefacts others had made. Robert described how he felt about the model he had made:

> I know that my idea is on that board now so I know that nobody else has put that on and that I have put it on so that's just like...the physical evidence of it being there means that it's a reflection of the thought that I had.

In contrast Lynda noted how people were able to 'digest' the work of others and relate 'the journey of Company A's to 'their own journey'.

The artefacts influenced the process

As the consultation progressed the addition of artefacts to the map made it

increasingly complex. Lynda described how this led to the workshops becoming longer as the participants 'were less interested in making something themselves and more interested in talking or looking at what others had done'.

The artefacts influenced the outcome

Lynda noted that the outcome, in terms of the content and structure of the staff handbook, would be 'very different' from previous efforts and that:

> I don't think we would have achieved that by doing what would have been our old processes of circulating a document, getting people to write stuff, putting it in and sending it to a printers.

- The motivation for designing

It is important to understand that there were two types of participants who engaged in these design practices and that each type may have had different motivations. The types were:

- people who were familiar with the design practices and who were responsible for initiating the design practices (Lynda, Bob, Mary, Robert and Diana), who the researcher will refer to as the *champions;*

- people who unfamiliar with the design practices and attended the workshops, who the researcher will refer to as the *other participants*.

It is worth noting that amongst the champions Lynda also performed a leadership role as she was ultimately responsible for the project and managing the other champions.

Whilst the researcher interviewed each of the champions the data gathered in relation to the other participants was limited to observations made by the champions and to exit surveys completed by the other participants.

The relevant findings in relation to the champions were:

Prior experience created champions

Robert, Diana, Mary and Bob all led the map consultations with their teams in the absence of Lynda. Bob explained how he told Lynda ‘I wouldn’t mind being an advocate for this, so I want to bring my team to look at this and to talk through the process and see how they get it and see what they can add to it’. Bob went on to explain that he had found leading a workshop with his team an ‘easy process’, that adding to the map had been ‘very simple’ and that ‘because I had been involved in [the map making workshop], it was very easy to get people involved’. Similarly, Mary explained that the map consultation only worked because of the presence of people who had prior experience of the map making workshop and were therefore part of the ‘original team’. Her reasoning was that those people validated the design practices by saying ‘I really believe in this. I’m really proud of this, and this is what we created and why’. Lynda explained that she was flexible as to how the others facilitated their workshops and that it depended what they were comfortable doing.

Ownership of the design practices - a transition from external to internal

Whilst the researcher had collaborated with Lynda in designing the map consultation process the individual workshops were all initiated and delivered by Lynda and others. Lynda described this transition as ‘natural’ and something that had needed to happen. Lynda explained that it had been possible because they had gained ‘the skills and… some of the tools’ to do so. As to why this was important, Lynda said the process “needed to be owned by us’. Lynda saw the benefits of ownership as follows:

> I think for people to look at it and go, "I could do this in my team," whereas [if] you've got external input in that type of thing, people go, "Gosh, I could never do it because Lynda has got [the researcher] there and [the researcher] can't come to my meetings," ... so I think it probably gave people a bit more confidence to see that ... we'd had some support, a lot of support but it was still ours to do with what we saw fit.

Taking risks and protecting the project

Lynda explained that she had ‘kept a little bit quiet’ about how long the

consultation had taken and how much office space it had used for fear of losing those resources. She described being ‘relaxed’ about doing this.

Viewing the design practices as an approach rather than a process

In the context of explaining why she had engaged different people in the map consultation Lynda explained that she had included people ‘who might benefit from seeing this as a way of working, regardless of whether they're interested in the handbook or not’. Lynda envisaged that people may be able to use this approach in their own roles in the organisation. Lynda described the design practices as a ‘totally different approach’ and that ‘sharing… the approach’ had created something new in the organisation.

Working towards unknown outcomes

Lynda viewed the unknown nature of the outcomes as the biggest difference between the map consultation and any other project she had worked on. Initially she had found the inability to control the outcome or to know the outcome as ‘scary’. However, she overcame these feelings once she had run the first two workshops and received ‘affirmation from others that [she was] not barking up the wrong tree’.

Other forms of experience supported the design practices

Lynda explained that she was experienced in facilitating and training and that this experience, of ‘standing up in front of people and delivering something’ had helped give her the confidence to run the workshops. She was also familiar with using posters as visual prompts in meeting. Lynda also found the structure similar and had prior experience of storytelling in order to set the scene and of creating tangible outputs.

Value of the alignment

Lynda explained that whilst the staff handbook was important to her and her team it was not viewed as a key internal communication by the organisation.

Lynda described the reasons for this as being because they were ‘not very proud’ of the existing staff handbook and it was not accessible on the intranet.

Alignment to values

Lynda described one of the main outputs of the map consultation as being ‘the strength of message around people’s lives at Company A’s and the ‘authenticity’ of the information. This aligned with the organisations values however as Lynda noted, ‘it’s not high level board stuff’.

The relevant findings in relation to the other participants were:

Developing insights

Lynda explained how she had observed people interacting with the map and with each other and found that the process did not ‘force people to start at the beginning and finish at the end, [it] allowed people to come and look at it and just focus on what’s interesting for them, at that point’. This influenced her thinking that the staff handbook should be able to be used in a similar way.

Difficulty extending design practices without participation

Robert described people’s initial reaction to the map consultation as being ‘Bloody hell, what have we let ourselves in for today?’ but that once they had participated they could ‘see the merit of it’. Robert thought this would be a barrier to extending these design practices to other areas of the organisation where people had not already participated.

Encouraging further use of the design practices

Lynda explained how as well as facilitating the consultation she had also encouraged people to use a similar approach in their own roles within the organisation. Lynda described this as ‘flying the flag’ and saying ‘you can do stuff differently and have the freedom to do that’. She explained how she had finished each workshop by saying ‘maybe this is something that you can take

away and think about for your own work' and that she had received a positive response to this.

Recognition that a different approach may produce different outcomes

In the exit survey the participants were asked whether they agreed that 'similar outcomes could have been achieved just by talking' on a scale of 1 to 10 with 1 representing 'strongly agree' and 10 representing 'strongly disagree. Of the 65 participants, only 8 recorded a 6 or higher with the average score being 3.5.

7.4 Emergent design practices

7.4.1 Introduction

These were new design practices that were implemented by people who had participated in the design practices introduced by the researcher. In each case the decision to implement the new design practices was directly attributed by people to their earlier participation.

These design practices consisted of the turning the map into a handbook (s.7.4.2), the Halloween workshop (s.7.4.3) and the team strategy workshop (s.7.4.5). Whilst turning the map into a handbook followed the map making workshop and the map consultation and was intended to develop a new staff handbook the Halloween workshop and the team strategy workshop were intended to support existing organisational processes.

7.4.2 Emergent design practices: turning the map into a handbook

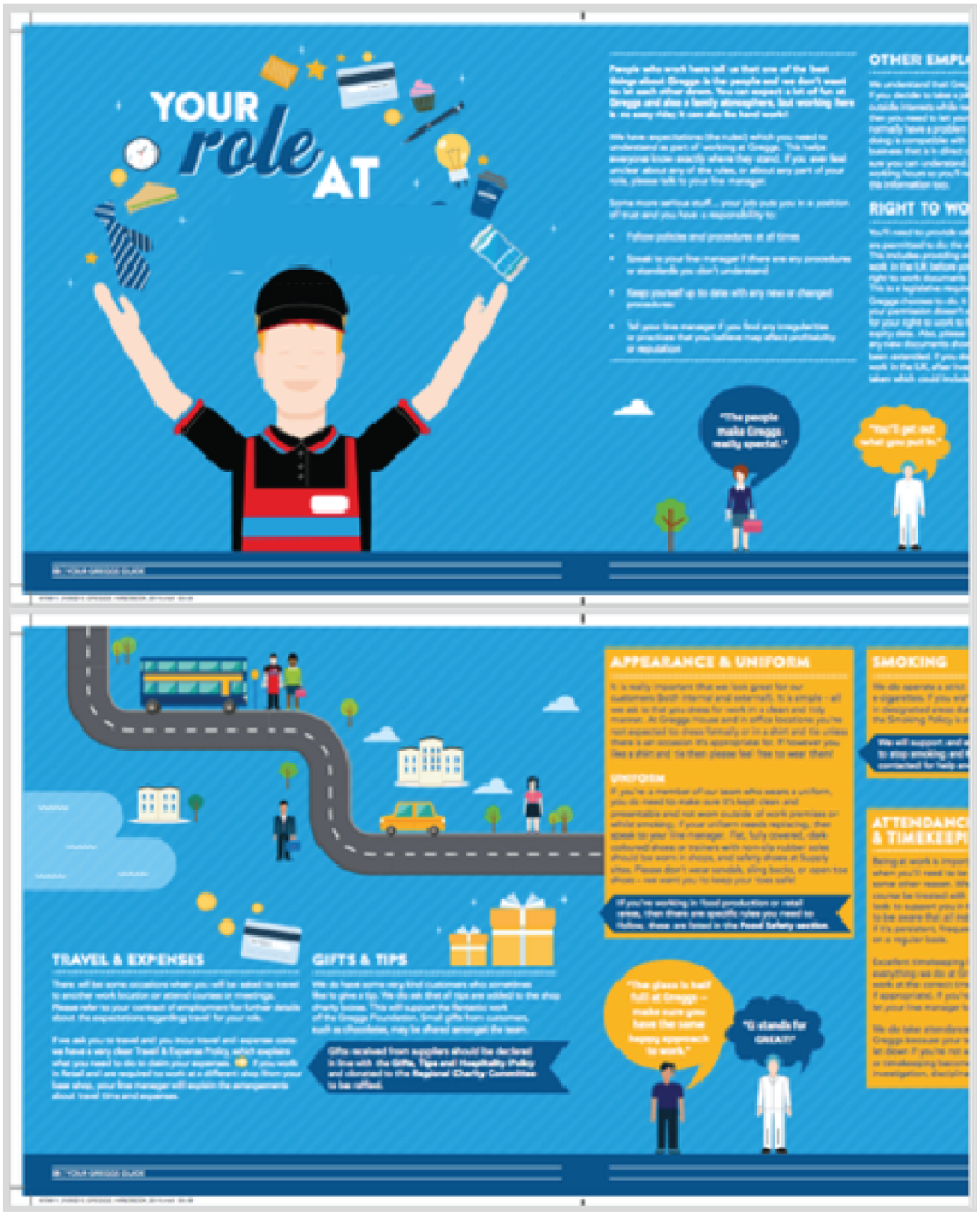


Figure 7.9 Extract from an early proof of the staff handbook

❖ Who engaged in the design practices

These design practices were engaged in by manager Lynda, who was responsible for implementing the design practices, working with external expert designers, in the form of a design agency.

❖ Where the design practices were situated within the organisation

This was not an established area of design practice within the organisation. The design practices were unfamiliar to Lynda, in that despite developing the design practices herself she acknowledged that she had not acted or thought in those ways before. The design practices were also unfamiliar to the wider organisation and to the design agency.

Assuming responsibility for design practices

Lynda was entirely responsible for developing and implementing this design practice. In the earlier map consultation Lynda made the transition from collaborating with the researcher to acting alone. Lynda collaborated with an external design agency in order to design the graphic style of the staff handbook. Lynda explained that the process she had used represented 'a break from the norm' – she explained that the normal process would have meant drafting sections of the staff handbook, circulating it to key stakeholders for their comments, collating the information and then 'send it off somewhere to be made a bit prettier'. Even if she had instructed the design agency, rather than the researcher, at the outset and requested 'something different' Lynda would have expected a familiar process of user research and sampling leading to some new graphics for her to consider.

❖ Where the design practices are situated within the organisation

Location

The map remained on the top floor of the head office throughout this period. Whilst the map's lack of visibility during the consultation period may have

lessened its impact, this remote location helped to create a sense of it operating outside of the normal rules of the organisation. Lynda referred to having ‘installed myself in the attic for a period of time’, suggesting that she had left the usual confines of the office for an unfamiliar private place.

The need for distinctive outcomes from unfamiliar design practices

Lynda recognised that the design practice she was using, alone in the ‘attic’, was unconventional and not part of any existing process within the organisation. Accordingly, she talked of making sure that the outcomes could not be confused with those associated with existing processes: ‘to make sure that it wasn't just something that anybody could have written and come in and done a consultation piece about and go, "Well here's your handbook"’. This suggests that if the design practices are unfamiliar then their outcomes may need to be unfamiliar as well in order for them to be considered worthwhile.

❖ The role artefacts played

Making sense of the artefacts

Lynda described ‘scratching [her] head” and asking ‘what am I getting [from the artefacts]?’ and wondering how she could ‘make some sense of it.’ The process she followed involved a lengthy period of reading, looking, rearranging, grouping, recording and categorising information contained within the artefacts on the map and the post-it notes that had been written on. When asked what was happening when she was carrying out these actions in relation to the artefacts on the map Lynda referred several times to ‘absorbing’ the artefacts and that this had led her to pick up their ‘tone’.

When describing what she got from this process Lynda said:

> it gave me lots of images and it gave me a structure and it gave me a tone and it gave me what was important to people, which was hugely valuable. I don't believe we'd have got that in any other way. What I would have got is lots of content. So almost that's what I then didn't have, which was left to me to try and just absorb myself in everything and then write [the staff handbook].

Artefacts and conversations as a twin approach

Lynda explained that she had been conscious that she would have to interpret what the artefacts meant. Accordingly, she described talking to people while they were in the act of creating artefacts. The result of this approach was "a fairly good understanding" of the artefacts meaning.

Artefacts aiding communication

Lynda described having sent photographs of all of the artefacts to the external design agency as a way of communicating the messages contained in the artefacts. Lynda perceived that the design agency were skilled in interpreting this type of information.

- The motivation for designing

Absence of existing design practices

Lynda explained how internal communications within the organisation did not have a 'brand', meaning that there was not a graphic style that had to be followed. This gave her 'freedom' to make decisions about the graphic style and layout of the staff handbook.

Conflict with existing processes

The existing process was for Company A to send text to an external graphic design agency who would then develop a series of images in response. Lynda's intention was to send the agency text but to also send photographs of the map and the artefacts on it.

Adopting an exploratory approach

When reflecting on the map making workshop Lynda described herself as being 'a bit too focused on the end result' and of feeling anxiety. However, by the time

of the map synthesis Lynda described herself as ‘a little bit more relaxed’ and prepared to ‘just see what happens’. She also described ‘starting with a blank piece of paper’ as being positive.

Viewing the design practices as an approach

Lynda explained that in order for the external graphic design agency to produce something that was ‘authentic and true to what had actually happened and what was actually on [the map]’ she had detailed discussions with them regarding the “approach” that had been taken. Accordingly, she was disappointed when the budget did not allow the graphic designers to visit the map consultation in person.

Alignment with one organisational aim led to consideration of other aims

Lynda identified one of the main outputs of the map consultation as ‘a sense of reassurance’ that her team was right to focus on how people lived their lives whilst working at Company A. Out of that had come a specific insight that people would be supportive of a move towards more flexible working. Lynda was due to start working on a new project regarding flexible working and now felt that it was ‘worthwhile spending time focusing on that because it will be well received...’.

7.4.3 Emergent design practices: Halloween workshop

Figure 7.10 Participants at the Halloween workshop

Figure 7.11 Creating artefacts during the Halloween workshop

❖ Who engaged in the design practices

These design practices were engaged in by manager Keith, who was responsible for implementing the design practices, and a further one hundred and fifteen people (fig. 7.10) who participated for an hour during a day long retail conference that Keith had organised. No expert designers were engaged.

❖ Where the design practices were situated within the organisation

This was not an established area of design practice within the organisation. The design practices were familiar to Keith who had participated in the bicycle workshop but were unfamiliar to all the other participants.

When first interviewed Keith was looking for an opportunity to introduce the design practices. He was confident that it was relevant to his colleagues' personal development – 'it feels as though it fits' – but was not sure what existing meeting date to use and how to introduce it. As discussed, the design practice was introduced in the context of a day long retail conference.

❖ The role artefacts played

Artefacts as rough communication tools

One of the posters made in the Halloween workshop was subsequently scanned and circulated within the wider organisation as a graphic representation of important issues for the retail shops in the next quarter, which included Halloween. There was no requirement for it to be polished or finished in any way by an expert designer.

❖ The motivation for designing

An emerging design vocabulary

Keith's lack of experience was acknowledged by him as a potential barrier to him initiating the design practice. When first interviewed he was contemplating

running his own design workshop with his fellow area managers. He was concerned that he did not know how to introduce the activities to people and that his colleagues would ‘look at me like I’m a lunatic’. In order to seek to compensate for this ‘lack of understanding’ he was proposing first sharing his experience of the bicycle workshop.

In the absence of the researcher Keith relied upon some of the vocabulary previously used by the researcher, specifically the term ‘design disruption’. When interviewed Keith explained how following the bicycle workshop he had searched on the internet to ‘find out a bit more about design disruption’. The results of his research included finding the DDG’s website and a design activity that involved creating personal manifestos. In Keith’s email describing the Halloween workshop he referred to having ‘deployed a sort of Design Disruption technique to get people working together and certainly having fun creating storyboards’.

Redesigning the brief

Keith described how as the organisation had become more centralised his role had moved from being an innovator to an ‘implementer’ of instructions. Despite this he still felt a need for creative solutions and explained how he steered, adapted and interpreted instructions towards those solutions. This was done whilst still complying with the ‘rules’. Keith summarised this as: ‘Tow the company line, but at the same time get a different result to what we might do if we had just done what we were told’.

Being prepared to be an alternative voice

Keith’s use of the design practices should be viewed in the context of the changes to his attitude that took place following the bicycle workshop. In particular Keith described how in a subsequent meeting with the chief executive, he had spoken out about the need for a new process in retail shops when before he would have given ‘stock answers’ such as ‘we’ve got to try and upsell more’. Keith explained that ‘perhaps I wouldn’t have said that if I hadn’t have been through the workshop before. He also explained how re-watching a

film shown during the workshop had helped him to ‘embed’ what he had learnt.

7.4.4 Emergent design practices: team strategy workshop

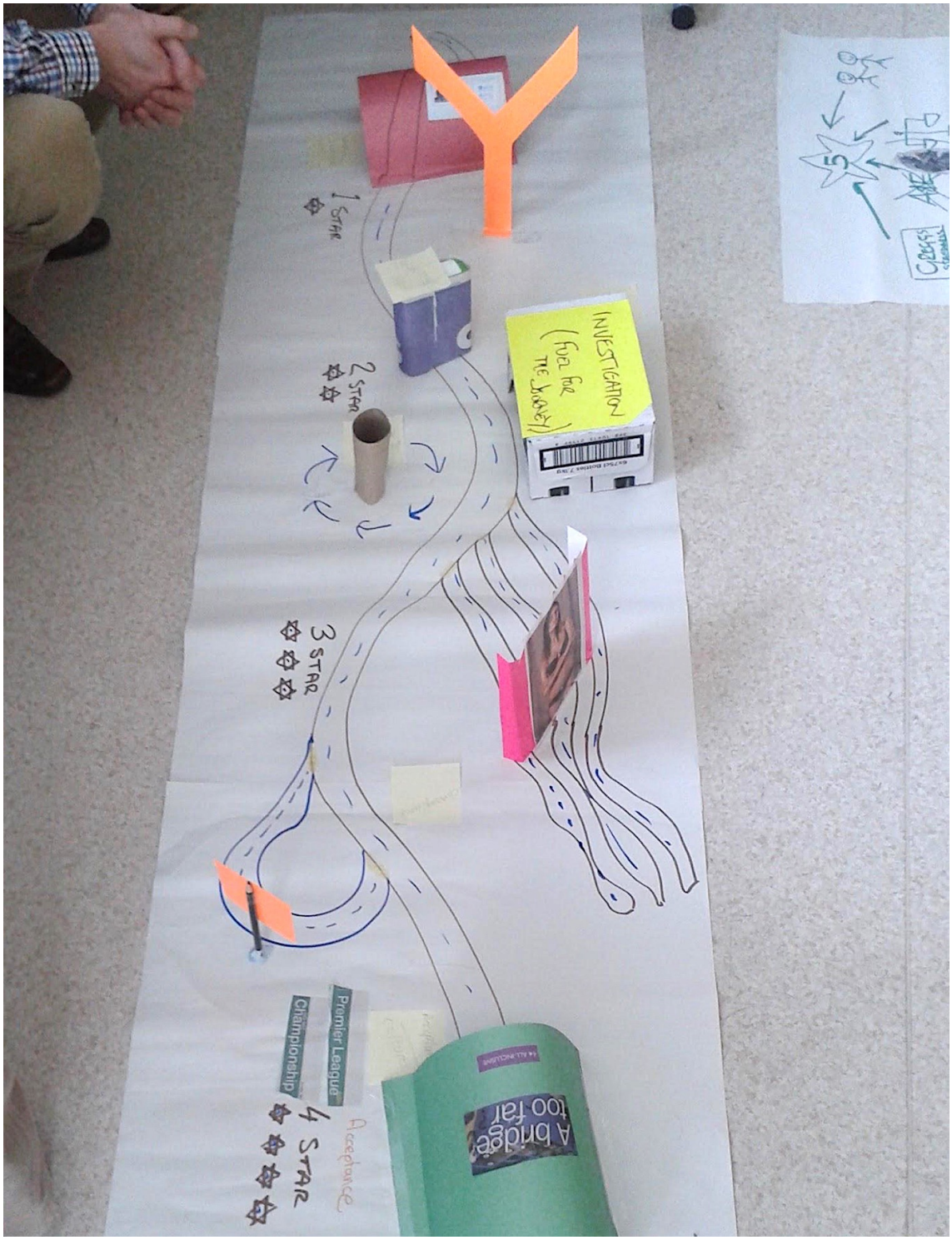


Figure 7.12 Manager Bob with one of his team's maps

❖ Who engaged in the design practices

These design practices were engaged in by managers Bob and Mary, who were responsible for implementing the design practices, and a further six people from Bob's team in the compliance department. No expert designers were engaged.

Importance of establishing trust between designer and participants

When Mary was asked whether she would implement the same design practices with other groups of people in the organisation she replied:

> Yes, I would. I'd pick and choose how I used it, I wouldn't overuse it. It needs to be a group who are kind of open to it, and I think because I'd had the pre-session with them, I knew them all as well … and had built up that relationship and they kind of trusted that it would be fine and I think almost I'd need that relationship to be really confident in getting people to understand that it's not just silly or … trivial, it's real learning.

❖ Where the design practices were situated within the organisation

This was not an established area of design practice within the organisation. The design practices were familiar to Bob and Mary who had participated in the map making workshop and the map consultation but were unfamiliar to all the other participants.

Using familiar processes to create context for design practices

Bob and Mary took actions to relate the design practices to existing processes within the organisation. Bob told his team that Bob 'This is about development. This is an opportunity to identify where those problems we have are and then look to come up with strategies to try and get through those'. The design practice itself was then implemented in the context of other activities including 'brainstorming' and 'creative thinking'.

Access to resources

By situating the design practices within the development of strategy for his team

Bob was able to access resources from the learning and development team in the form of Mary's time. However, as the design practices were unfamiliar there were no materials or budget to buy materials available. Mary explained that she had 'got loads of cardboard boxes, newspapers, magazines, coloured card. I didn't have quite the same tools as [the researcher] had but … the more basic things you can get hold of if you go through your recycling bin'.

- The role artefacts played

Artefacts helped to sustain ideas

The artefacts were created collaboratively by members of Bob's team. Bob described a process where no-one's ideas were dominant and all ideas co-existed in the artefacts:

> where two guys had been working on something on one strand, the other four people in there didn't take any of that away, didn't remove bits. They just agreed with them and they may have added a little bit of additional either material or comment around [it].

Artefacts enabled different thinking

Creating the artefacts allowed the participants to think about and discuss physical objects. Mary described telling the participants:

> I need you to build that blockage. How big is it? How solid is it? What does it look like? What does it feel like to you? Are there ways through it? Are there ways round it? Or is it a fundamental block that you just can't do anything about, we need to smash it down.

Mary observed that by the end of the session the participants were "completely out of health and safety thinking and things that they do already."

Artefacts as an ongoing reflective tool

Bob explained how the maps his team had made would be revisited at regular team meetings:

> [The map shows] a clear journey and we reflect on this. We don't bring it out at every meeting but we've kept it and … it's been taken down and replaced and looked at three or four times. … We're just looking to say, "Look, don't forget guys, this is the journey. Are we at the right place on that journey?" So, instead of having a standard business plan where it's a Gantt chart and its timelines and gates and all the other, really boring management just stuff, to me this is a much more powerful way of saying, "Right, we agreed that was the road we were going to take, so is it still the same road and are we at the point that we wanted to be at this point and also, are these obstacles and, sort of slip-roads and all the other bits, are they still there? Have we solved them? Are they right?" If we do this again, we might draw this out at this point and you would remove some of these areas because you would say, "Do you know what? We've now solved this".

Similarly, Mary believed that the 'learning' would come out of the artefacts as more time was spent considering them.

❖ The motivation for designing

Existing process created an opportunity

Bob's team had its own business plan and was following a process of regular team meetings to focus on how they would achieve that plan. Mary explained that the design practices she and Bob had experienced during the map making workshop 'fitted just really well' into the team meetings.

Design practices were seen as beneficial

Bob explained how he spoke to Mary and said:

> I think the whole creative thinking bit and using those design principles as a different way to look at our problems, it would help the team ... pull together but also... it would give them a bit of clarity ... to put [their issues] out on paper and say, "Well, actually, that's the journey that we are trying to get on. It's at that point, so half way down the map, that's the bottleneck, that's the bit where it's not moving."

Bob used the word 'principles' several times to refer to the design practices he had been introduced to, suggesting he believed there was something of value underpinning the activities he had participated in.

Individual preference

Mary strongly identified herself as someone who preferred to work with artefacts, as opposed to just talking or writing. She explained:

> I'm very visual. I have a very strong visual preference and I think if there's pictures, I find it difficult to pull away from those, that does lead my thinking.

This preference meant that she felt the models made as part of the map making consultation had more impact than 'a flipchart of ideas' and that creating artefacts made ideas 'more real'.

Design practices were seen as being different to other processes

Bob described creating artefacts as a 'much more powerful' approach than existing organisational processes, such as using business plans, charts and timelines, which were 'really boring management stuff'.

Design practices should be owned by the organisation

Bob expressed frustration that design practices were often outsourced to external designers. He gave the example of branding and said 'I don't see what knowledge we don't have in the business' and that there was 'too much emphasis on the external parts [of the design process]'. When asked to explain what would be needed for Company A to develop its own design practices Bob identified process:

> Someone would need to own a bit of process internally and know enough about it to be able to facilitate it, or help run it, or a group of people would need to. There's nothing to say that as an organisation you couldn't develop your own process but obviously it takes a bit of time and to do that you would maybe need some strategies to support that process. Let's say one of our strategic aims [would be to] develop processes in order to do things ourselves…

7.5 Summary

An overview of the key findings has already been provided at the beginning of this chapter (s.7.1). In addition, this chapter has demonstrated that the theoretical model of CoDP is an appropriate inquiry tool for understanding design practices and that the findings it generates are useful in beginning to construct a more detailed model of CoDP.

Adopting a CoDP model has revealed that:

- artefacts and collaboration both had key roles in engagement;
- people felt able to create provocative artefacts that conflicted with the existing organisational practices and aims;
- strategic alignment to existing organisational aims was critical to sustaining design practices; and
- the design attitude adopted by the researcher was based upon provocation.

The issue of whether design attitude was displayed by people who engaged in the emergent design practices is not straightforward and so is discussed in detail later (s.10.3)

In relation to the infrastructure needs of CoDP, the key findings in this case study suggest that the following needs may also be important:

- design vocabulary;
- design champions; and
- design space.

These findings are discussed in detail in chapters 9 and 10. In the following

chapter (ch.8) a markedly different set of key findings are discussed in relation to Ryder. These differences may be attributable to the different size and structure of the organisation and its familiarity with using design practices.

Chapter 8

Ryder Analysis

8.1 Introduction

This chapter introduces the data that forms the basis of the key findings in the Ryder case study. The data is considered using the researcher's conceptual model of communities of design practices (CoDP) and the analysis framework. The researcher has used the prefix '❖' to indicate relevant areas of the CoDP and will highlight specific findings by using italics.

The design practices fall into three categories: existing design practices actively engaged in by Ryder at the time of this study (s.8.2), design practices introduced by the researcher through the interventions (s.8.3) and design practices that emerged from within Ryder as a result of the researcher's interventions (s.8.4). Accordingly, in each of these categories the researcher focuses upon the key findings in the following areas:

- ❖ who engaged in the design practices
- ❖ where the design practices were situated within the organisation
- ❖ the role artefacts played
- ❖ the motivation for designing, in terms of personal experience and characteristics, and organisational aims

In this chapter it is assumed that all of the members of Ryder referred to were expert designers or in the process of becoming expert designers unless stated otherwise.

The key findings will show that:

Conditions

- Whilst the strategic alignment of design practices to organisational aims was important there was freedom to pursue a more exploratory and uncertain agenda.

- Sponsors enabled an exploratory approach and access to resources.

- People within the organisation were prepared to take leadership roles and assume responsibility for developing and initiating design practices.

Characteristics of the new design practices

- Participation lead to the emergence of a champion who then enabled further engagement in design practices.

- The tangible outcomes of the interventions were unexpected and occurred in different areas of the organisation to where the interventions were situated. This may be a characteristic of communities of design practices.

- Where design practices were familiar the use of provocation helped to motivate individuals.

- Conversations, in the form of informal meetings and formal interviews between the researcher and senior managers were as influential as the interventions.

- The convergence of thinking, between the researcher and key individuals, was as important as strategic alignment to organisational aims.

- The outcomes of the design practices introduced by the researcher were acted upon by senior management partly because there was a common thread between design practices relating to the development of products

and design practices used as a strategic tool for the development of processes and policy.

Potential impact

- The introduction of new design practices helped existing but latent communities of design practices to become active. This was achieved through the interventions and through conversations that helped to change attitudes and provide additional motivation.

- Creating artefacts encouraged the sharing of design practices and could play a catalytic role in creating and nurturing communities of design practices.

- In one case engagement led to the development of insight into how wider organisational change might be achieved.

8.2 Existing design practices

8.2.1 Introduction

During the interviews held as part of this case study a series of examples of existing design practices were described by interviewees. In addition, the researcher participated in and observed a design competition and a design review meeting. The primary purpose of those observations was to consider what an appropriate intervention might be. Accordingly, the design practices described below do not represent an exhaustive audit of the organisation, rather they are the design practices discovered by the researcher during his interventions and subsequent interviews.

All the design practices discovered were widely recognised within organisation and engaged both internal and external expert designers.

The examples of existing design practices included the design of buildings (s.8.2.2), a design competition (s.8.2.3), a design review meeting (s.8.2.4) and the development of new processes and policy by senior managers (s.8.2.5).

8.2.2 Existing design practices: the design of buildings

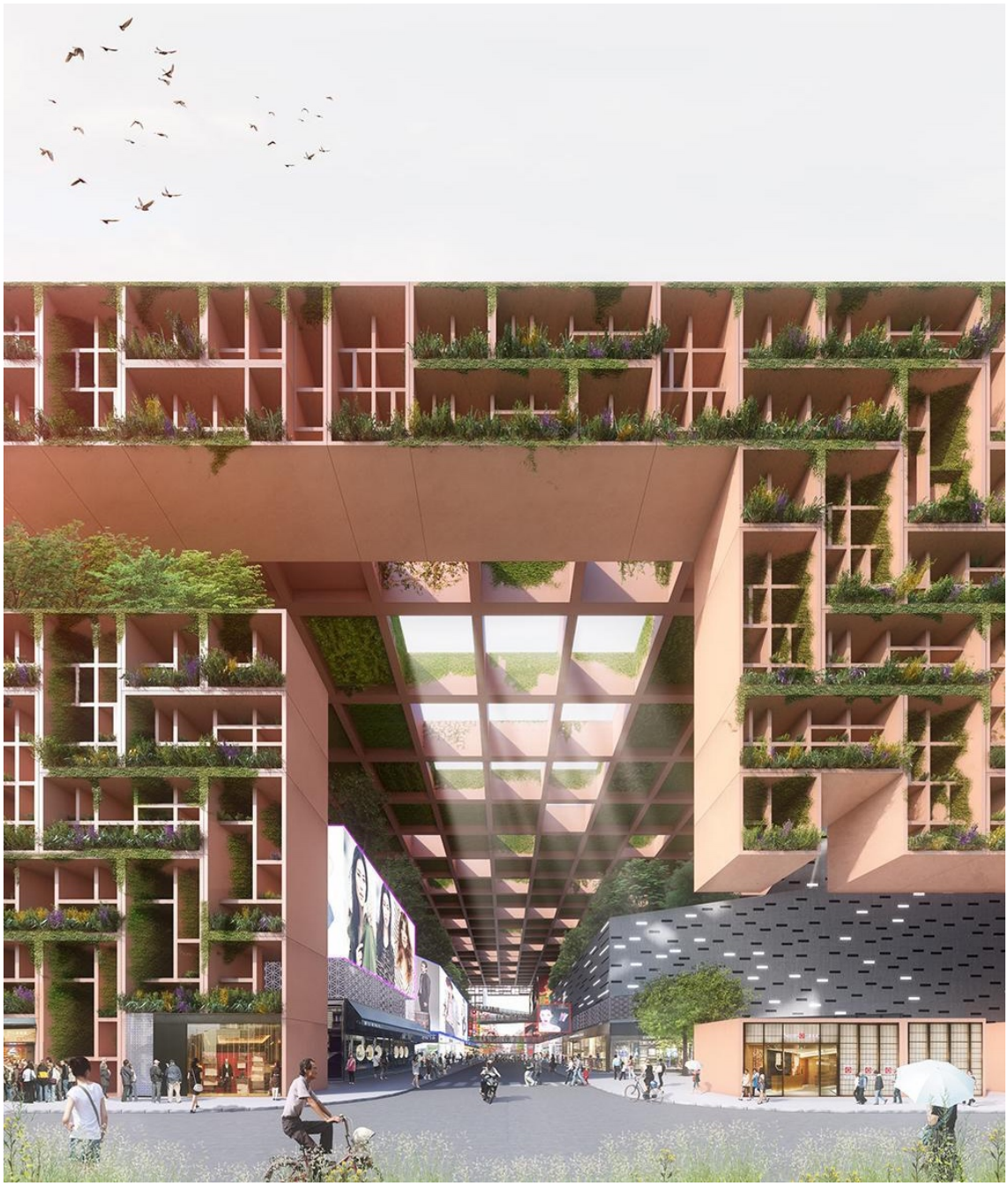


Figure 8.1 Proposal for a city block in China that was being designed during the research period

As a firm of architects, the main purpose of the organisation was to design buildings for clients. It was beyond the scope of this study to inquire into all the design practices encompassed by this area of activity. The points highlighted in this section are made in order to provide context to the more in depth observations made whilst the researcher participated in a design competition (s.8.2.3) and a design review meeting (s.8.2.4).

- Who engaged in the design practices

Nearly all the members of the organisation, including senior managers, managers and other employees were engaged in these design practices.

Different people engaged in different design practices

As senior manager Andy explained, everyone within the organisation was involved in design albeit 'in different ways'. These differences were also noted by employee Vicki who explained that whilst her approach to designing buildings always started with sketching followed by modelling:

> everybody works differently in that way, because I don't think you need to be able to sketch to do this job, you don't need to be able to model to do this job; I think you just need to be able to know what the best way for you to do it is.

Senior manager Dennis explained that senior management's role in the design of buildings tended to be having discussions with people in order to help them develop their designs. In his own case this meant that whilst he continued to use drawing he tended 'to use words more than drawing as a means of thinking'.

The importance of collaboration

Clients and other stakeholders were engaged in design practices. Manager Sid explained that whether clients collaborated depended upon the type of client and the type of project. He gave an example of an office developer not being interested at all whereas a primary school may be very interested in

understanding their environment. Sid explained that:

> [a primary school's engagement] could be anything from sitting them with rooms and actually with them moving furniture around or reconfiguring existing rooms to work better for them, or it could be making little cardboard models… [or] you could actually embed a project in their curriculum.

- Where the design practices were situated within the organisation

This was an established area of design practice within the organisation. The design practices were explicit, widely recognised and focused on product development. Further these design practices were shared through teams and more widely through regular design review meetings that were attended by a wide cross section of the organisation.

- The role artefacts played

The role of artefacts was described in many ways during interviews. This variety was also evident to the researcher when spending time in Ryder's offices and observing people engaging in sketching and modelling as well as interacting with plans and models. Examples demonstrating this variety are as follows:

Drawing as understanding

Whilst discussing the act of going to building sites Dennis described drawing the site as being 'a means of understanding what you're seeing, a means of looking'.

Using physical models to aid decision making

Sid described a problem with using a virtual model on a computer as being the avoidance of decisions because it was too laborious to change the model. He contrasted that with using physical models where changes could be made quickly to enable 'snap decisions'.

Recognising that artefacts contain valuable information

Architect Vicki described how she used sketching at the early concept stage of designing and how:

> hand drawings are really important because as soon as you start modelling, you start to create something, that it's got more information in than you actually know sometimes… sometimes a winning image can either sell a whole scheme and it's a flat piece of paper but it makes you feel like you're there because of, kind of the art to it.

Sid explained how at the end of every project all of the notes, drawing and models that had been generated by the project would be kept and where possible attached to the electronic file for that project.

Physical artefacts were more closely associated to designing than digital ones

Architect Cynthia described working on digital drawings as not being as 'design-based' as other ways of working. When asked to explain this she said that:

> because you start out with pen and paper, and you're sketching out concept ideas, and then you take that into digital and refine it, so you're designing the details... on digital, but the overall concept is more paper.

Using models to communicate

Dennis explained that one of the reasons for making models of buildings was 'to talk to our client' and that 'putting a model, a three-dimensional object, in the middle of a table totally changes the discussion that you have with the client'. When asked to explain this, he said that the main reason was 'a thing about tactility, that [the client] can touch it'.

❖ The motivation for designing

As the principle aim of the organisation was to design buildings arguably that was a motivating factor for individual members. However, in addition, all the architects and managers interviewed referred to experiences they had had at university and earlier in their careers as motivating them.

8.2.3 Existing design practices: a design competition

Figure 8.2 Part of the competition team

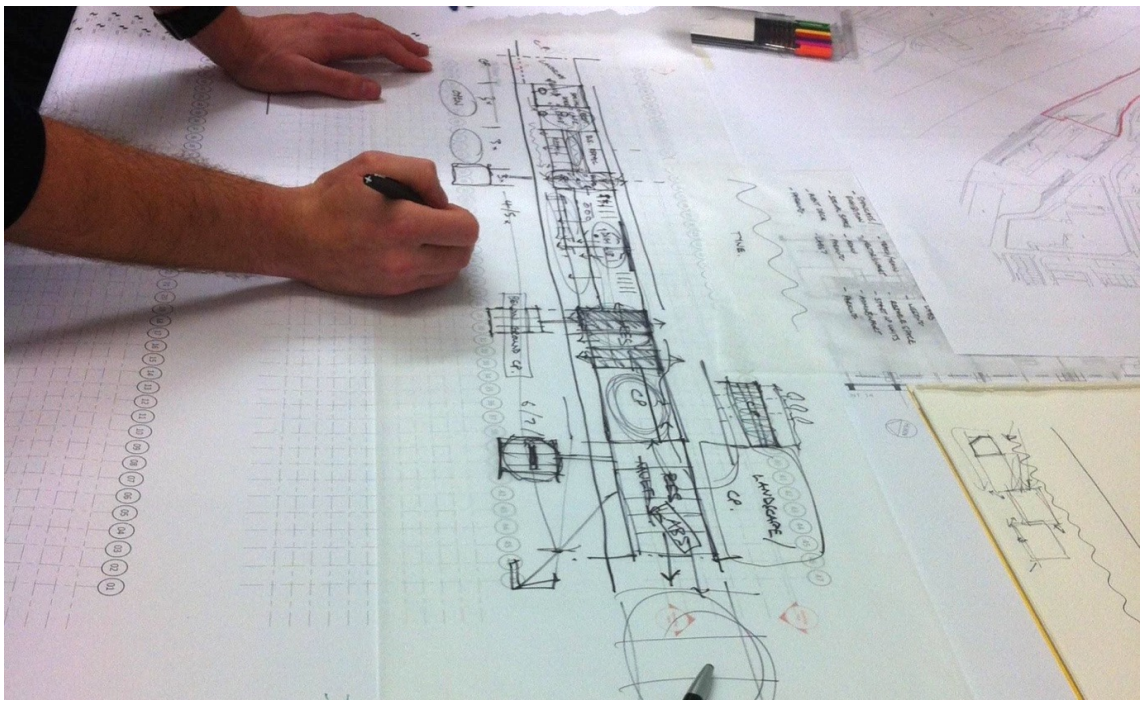


Figure 8.3 Sketching using a grid template

Ryder regularly took part in design competitions by submitting designs for buildings in the hope of being appointed. However, it also took part in an annual competition where the aim was to develop and test computer software concerned with the digital modelling of buildings. The researcher participated in this annual design competition and in doing so could observe the design practices. Whilst the time pressures of the competition meant that it may not have been representative of day-to-day ways of working some of the findings are relevant.

- Who engaged in the design practices

These design practices were engaged in by a mixture of members of the organisation working together with external expert designers.

The researcher participated in a team Ryder had entered in an international design competition known as Build Earth Live, spread over three consecutive days. The team consisted of between forty and fifty people at different times. Approximately twenty of the participants were from Ryder and consisted of junior architects and administrative staff. The researcher was one of several participants from outside of the organisation. Other participants included engineers and architects from other firms. There were also two other representatives of Northumbria University as one of the aims of taking part in the competition was to test and develop digital tools and methods that were part of the collaboration between Ryder and Northumbria University known as BIM Academy. The participants were split into two groups: the first concerned with designing a building to be built upon the site specified in the competition brief and the second, concerned with creating a digital three-dimensional model of the building using tools already created as well as creating new ones. The researcher was part of the first group, pictured in Figure 8.1.

- Where the design practices were situated within the organisation

This was an established area of design practice within the organisation, focusing on product, service and process development. The design practices were explicit and widely recognised as the competition took place on the ground

floor of Ryder's head office, using the public atrium as well as two of the three meeting rooms. As such the design practices were highly visible to the rest of the organisation and to visitors to the office.

- The role artefacts played

Artefacts were not accessible

The researcher observed people discussing the plan of the existing site for several hours during the first day. However, none of the participants made any marks upon the plan to suggest what might be built upon it or made separate sketches or models. Also, none of the participants visited the site even though it was only a ten-minute walk from Ryder's office. The initial design for the building was done by a single architect, working on a computer, meaning that other participants could not contribute.

Existing artefacts influenced peoples thinking

Rather than starting with a blank sheet of paper the team made their initial sketches (three in total) of the new building on a sheet of paper with a grid pattern taken from the digital modelling software that would be used later (see Figure 8.2). As a result, the form of the new building consisted of a series of cubes.

Sketching was combined with other activities

By the second day of the competition most of the group had begun to make sketches which they kept next to their computers. When the researcher inquired as to the purpose of these sketches he was told 'just to make things simpler', 'to remind me what I am working on' and 'to talk to other people about'.

- The motivation for designing

Collaboration as an organisational aim

The collaboration with Northumbria University through the joint venture in the BIM Academy was widely known about within Ryder. Arguably participation in the competition was understood to be pursuant to a clear strategy of the organisation.

This should also be understood in the context of Ryder's overall attitude to collaboration. Senior Manager Bill described collaboration with external organisations as being 'the bread and butter' of the Ryder's activities and that he did not differentiate between the value of collaboration and the value of Ryder's other activities.

Freedom to participate

All the people participating in the competition, from Ryder and other organisations, had been seconded for the three-day duration of the competition. During that period researcher observed people working exclusively on the competition and only checking emails or making phone calls regarding their day to day work during food and drink breaks.

Personal experiences and characteristics were frustrated

There was a lack of clear process or means of collaboration for the group the researcher was observing. This meant that individuals' personal motivations for designing were mostly frustrated. During conversation with these people the researcher was repeatedly told that they were 'bored', 'frustrated' and felt 'unable to contribute'. One of the architects told the researcher that in a 'normal project' she would always start with 'a blank sheet of paper' but that format of the Build Earth Live competition was a special exercise that did not necessarily promote that.

8.2.4 Existing design practices: a design review meeting

Figure 8.4 Sketching suggested amendments

Figure 8.5 Drawings for a design competition regarding a city block in China

❖ Who engaged in the design practices

The design review meeting observed by the researcher began with eight people in attendance of whom four were senior managers, two were managers and two were junior architects. During the meeting, which lasted just over five hours, the people in attendance changed with two of the senior partners remaining in attendance throughout. This mix of people allowed decisions to be made and courses of action agreed during the meeting. As well as observing the researcher viewed this meeting as a trust winning exercise between him and the senior managers.

❖ Where the design practices were situated within the organisation

This was an established area of design practice, widely recognised throughout the organisation. This design practice was concerned with the development of products, as it aided the design of buildings, but also the development of process. The meeting took place in a large meeting room that was only partially screened from the main office. Sid explained that this was so others could observe the meeting in the hope that it would establish a way of doing things in the wider organisation.

❖ The role artefacts played

The artefacts were accessible

Throughout the meeting pieces of paper were spread over the two large meeting tables. These contained representations of buildings in different forms including hand drawn sketches and computer generated images. In all the meetings, the participants were encouraged to draw and sketch on the representations to record their ideas (fig.8.4). Despite being an observer the researcher was included within this.

The artefacts enabled collaboration and synthesis

During a discussion regarding a college building several arrows were drawn on

the plan to indicate the different locations a building could be located. People then touched arrows to indicate which one the agreed with. During a presentation regarding a design competition for a building in China (fig.8.5) senior manager Andy began drawing on the three-dimensional representations of the building to reflect all the suggestions that the participants had made.

The artefacts allowed people to move between different points in the design process. During a discussion of the China design competition Andy asked manager Jonny to bring the earlier initial sketches to the meeting. These sketches led to a decision being taken to take the design of the building back to those initial principles.

The artefacts encouraged conversations

The participants responsible for each project began by introducing the background to the project and then highlighting the current issues. They did this by talking to the pieces of paper they had brought with them - touching images with their fingers and marking with images with a pen to emphasise points. In the group discussion that followed the other participants asked questions in a similar way, again touching and marking the images.

Talking and sketching were a combined approach

During a discussion of a project regarding an office building the manager presenting the project sketched alongside the plans to explain more detailed information. He did this whilst talking about each detail.

The artefacts were treated as being valuable

At the end of each presentation and discussion all the representations of buildings, including hand drawn sketches created by the participants, were carefully collected and taken away.

- The motivation for designing

Embedding design practices as an organisational aim

Dennis explained how part of his role was to ‘structure and develop design quality’ within the organisation and this this was viewed by senior management as ‘a critical part of the practice’. This development included setting up the design review meetings with a view to ‘embedding design’. Dennis described the purpose of the design review meetings as being ‘to really think about the fundamentals of the project’ and to encourage ‘drawing as play and to understand ideas and concepts at an early stage’.

Sid explained that the aim of the design review meetings was to embed those design practices in a wide range of people throughout the organisation so that it became ‘more natural’ to use those approaches. He described this process as ‘slowly changing the way people work… over a long period of time getting different groups of people together just to exchange ideas and to help that ideas exchange become part of their working practice.’

8.2.5 Existing design practices: the development of new processes and policy

Figure 8.6 Ryder Blueprint strategy event 2017

All of the senior managers interviewed - Bill, Andy and Dennis - held the opinion that design practices were used at a strategic level in order to develop new processes and policy for the organisation.

❖ Who engaged in the design practices

On a regular basis the design of strategy was carried out exclusively by senior managers, often whilst attending the monthly leadership forum meetings. However, there was also collaboration with the rest of the organisation through their annual participation in contributing towards Ryder's strategy document, known as 'Blueprint'.

❖ Where the design practices were situated within the organisation

In the interviews with senior managers they confirmed that this design practice

was applied to all areas of the organisation. From a physical perspective, these design practices mainly took place during leadership forum meetings, in a large meeting room in Ryder's head office. However, development of the Blueprint strategy document included events away from the office such as the initial workshop initiated by the researcher and a residential retreat lasting two days that included senior managers and managers.

Whilst Bill and Andy were confident that design was being applied at a strategic level Dennis was more cautious. Dennis suggested that whilst this approach was integral to the organisation it was not structured so that it had become intrinsic. The result of this was that the design of strategy was 'slightly different' every day and 'in a lot of ways it happens by accident'. Bill confirmed this when he explained that Ryder had been using these design practices for over twenty years without knowing it until recently.

❖ The role artefacts played

Artefacts played a limited role in the design of strategy. The actions most described by the senior managers interviewed were discussion and thinking. However, those actions were synthesised into the creation of an artefact in the form of the Blueprint strategy document.

❖ The motivation for designing

Design practices trickled upwards and influenced the use of design at a strategic level

These design practices were described as 'design thinking' by Bill and as using design as a 'tool for thinking' by Dennis. There was however a clear link between the use of design at a strategic level and the ways in which they designed buildings. Dennis described this link as being taking 'the way we think about design' and applying it to developing processes and policy. Bill went even further, stressing that 'You have to think about design rather than this design thinking as a concept, ... to challenge norms and processes of businesses or whatever'. In his case, he was 'thinking about design all the time' and it was this

that he applied to strategic decision making.

Design as a process

There was a belief that design is a valuable process that could be applied to developing strategy. Dennis described this process as ‘analysis, synthesis, design, appraisal back to analysis, synthesis, design, appraisal’.

Experimenting

Andy described a sequence of experimenting and waiting to see what the response was. He described this as a ‘throwing it over the wall mind set’. Similarly, Dennis described a process of risk taking where the organisation will ‘try that and see what happens’. Andy and Dennis both attributed this experimental approach to their background as architects. Whilst Bill advocated the same approach - experimenting, learning and changing - he based it upon a recent experience of attending a three-day course at Harvard University on design thinking.

Embracing frequent failure

Dennis described a deliberate process of gathering a diverse range of information and of engaging in activities and interactions so that these would ‘stimulate further debate, further discussion or further investigation’ which would take the organisation ‘in different directions’. However, he also recognised that the results were often negative or not immediate: ‘Sometimes it’s kind of stillborn. It goes nowhere. Other times it takes a long, long while for it to come together’.

The importance of sharing these design practices

Bill explained that unless people were exposed to these design practices they would never adopt them. He described how junior architects were invited to the leadership forum meeting and the Blueprint strategy meeting to do just that.

8.3 Design practices introduced by the researcher

8.3.1 Introduction

Through the key design interventions, discussed in Chapter 6, the researcher introduced a series of design practices to Ryder which people actively engaged with. These design practices consisted of the initial workshop (s.8.3.2) and the box task (s.8.3.3). The initial workshop was intended to help a group of managers develop a presentation to be made to senior management whilst the box task was intended to gather insights into Ryder's creative processes.

The collaboration with Sid (s.8.4.2) is better understood as an emergent design practice as it was initiated by Sid and was part of a wider strategy of collaboration with external experts being pursued by senior management.

8.3.2 Introduced design practices: initial workshop

Figure 8.7 Making collages during the initial workshop

Figure 8.8 A story created in the initial workshop and subsequently included in the participants' presentation to senior managers

❖ Who engaged in the design practices

The researcher and his colleagues were responsible for implementing the design practices. The researcher asked the participants to take part in several activities by issuing briefs for the creation of several different artefacts (ch.6). The participants responded by working individually and in groups of two, three and four people. All the participants were managers in the organisation. All but one of the participants had trained and practiced as an architect and were expert designers.

Following the workshop further meetings were held by the group of managers to create a presentation. Three of the managers then gave the presentation to a management retreat that included senior management. This presentation was repeated at subsequent meeting of senior management together with a manifesto developed by the group.

❖ Where the design practices were situated within the organisation

The initial workshop took place in a large teaching room within the Design School at Northumbria University. Whilst the room used was outside of the organisation and unfamiliar to the participants some of them had studied architecture at Northumbria University and some of them continued to give lectures there. The researcher noted that the participants were nervous when they first entered the room.

This was not an established or familiar design practice within the organisation however elements of the task, sketching and collage, were familiar.

Design vocabulary

In the group interview the participants referred to having held their own ‘design disruption workshop’ to develop the presentation and the manifesto. Arguably this use of vocabulary, introduced by the researcher and his colleagues, enabled the participants to view the design practices as being separate from their own existing design practices.

- The role artefacts played

Artefacts encouraged discussion

During the workshop the researcher observed people discussing the materials available to them

Creating artefacts created time think

During the workshop the researcher observed long periods of time where discussions had ceased and people were not physically engaged in making artefacts. Instead people appeared to be simply sitting down and thinking about what to do next. In the survey people's responses to the question asking how the creative tasks had made them feel included ‘space to think and react’, ‘time to think’ and ‘relaxed’.

Artefacts provoked further activity

During the group interview the participants explained that they had not been satisfied with the artefacts they had created in the workshop. Accordingly, they had spent further time developing the artefacts and had then created a presentation document which incorporated many of the artefacts. Whilst additional text and images were created, many of the original rough images created in the initial workshop (fig.8.8) were reproduced.

Sensemaking

In the group interview one of the participants explained that they had to spend time thinking about the collages made in the initial workshop to make them ‘more cohesive’ and ‘more objective’.

❖ The motivation for designing

Clear organisational aims

The participants were all aware that the outcomes from the workshop had to be incorporated into a presentation to senior management as part of the development of their strategic document, Blueprint.

Familiarity

Sid explained that the workshop had 'missed the point' with them as a group and that most people were sceptical and left thinking 'what was that shit about?'. Sid's view was that the provocative approach taken by the researcher and his colleagues was effective as it 'moves your process and moves your thinking' but that the individual tasks, including sketching and collage, were too familiar to be motivational.

Provocation

Sid described how he and several other participants could see past the individual tasks and respond to the provocative approach. In Sid's case, he was able to link the experience to the approach taken by some of his tutors at university. He described how they 'pushed you a little bit and made you think about something different. I think you end up with a better creative process if you just get nudged from side to side a little bit and challenged a bit more'.

In the group interview several people referred to the 'provocative statements' from the collages having 'provoked discussion' that led to the development of a manifesto that was included within that year's Blueprint document.

New design practices had to compete with existing responsibilities

Sid explained that the group worked directly under senior management and were under considerable time pressure. Sid suggested that each participant thought '"why are we here, what will we?" because… they've probably had one

hundred and fifty emails to get through'. However, Sid also suggested that people would get past that and they should be 'attaching more value to time like [the initial workshop]'.

8.3.3 Introduced design practices: box task

Figure 8.9 Extract from the exhibition materials displayed in Ryder's offices

The task itself involved twelve boxes, all marked ‘open me’ being placed in Ryder’s offices with the intention that the people who opened them would respond to a written brief and create an artefact using materials and tools provided by the researcher. This followed a lengthy period of development that included regular discussions between the researcher and manager Sid, observation of a design competition and a design review meeting, prototyping the box task and recruiting senior manager Andy as sponsor. Following the task the researcher used the artefacts created to install an exhibition in Ryder’s offices. The researcher then gave a presentation to Ryder’s senior managers at a leadership forum meeting.

- Who engaged in the design practices

The design practices introduced by the researcher were concentrated in the task itself and those people who opened the boxes and then created the artefacts. However, arguably the group of people who engaged in those design practices extends to Sid in his role as collaborator, Andy as sponsor, colleagues who discussed the box task whilst it was being carried out, people who engaged with the exhibition and the senior managers.

- Where the design practices were situated within the organisation

The box task was intended to engage people across the organisation. Boxes were left in each of Ryder’s offices in Newcastle, Glasgow, Liverpool and London and were left on the desks of junior architects, managers and a senior manager. A box was also left in a kitchen area in the Newcastle office. Of the twelve boxes left the task was carried out by nine people who included architects and managers. This was not an established or familiar design practice within the organisation however elements of the task, sketching and model making, were familiar.

- The role artefacts played

Familiarity

The participants all had experience of selecting materials and creating artefacts even if, as Cynthia explained, the box task did not 'fit' with their usual design practices. As Vicki explained: 'I had in my head that whatever materials were there, I'd kind of deal with it, I'd think about what I wanted to portray and then use the materials to do that somehow'. Rather than being particularly challenging creating an artefact was a familiar means of solving the problem.

Andy questioned whether creating artefacts 'as a means of changing thinking' may get 'confused with the model making that we do to develop and design our buildings'. However, none of the models or notes made by the participants indicated that this was the case.

Artefacts encouraged discussion but not collaboration

The boxes encouraged discussion in the office between the people who had received the boxes and their colleagues. People asked about the contents of the box and the participants intent but did not make any suggestions as to what they should do. There was also discussion between the individual participants. Vicki explained how these discussions focussed on what materials people had received and that people were interested to find that they all had different things. However rather than sharing ideas there was 'an element of, "Don't look at what I'm doing with my box"'.

Artefacts were provocative

All nine of the participants commented, in the notebooks they had been given, upon the brief they had been set. All nine expressed an opinion, either agreeing or disagreeing with the statement the researcher had drafted. When interviewed, Cynthia explained how she 'took all of the materials out of the box, looked at them and thought, well, I don't agree with this statement'.

❖ The motivation for designing

Collaboration as an organisational aim

The box task was a surprise insofar as none of those people who participated in carrying out the task had prior notice of the nature of the task or that they would be a participant. However, a week before the task began Andy, in his role as project sponsor, sent an email to all members of the organisation explaining that a collaboration with Northumbria University would be taking place and asking people to participate if their workload permitted. Further, the written brief inside the boxes explained again that this was a collaboration with Northumbria University. Accordingly, it is likely that participants would have identified the task as being an organisational aim and would have been motivated by this.

Competing with existing responsibilities

The written brief made it clear to potential participants that if they did not have time to complete the task that they could give the box and its contents to someone else. Despite this there was no guidance as to how much of their time they should spend carrying out the task. During the week the task took place, the researcher visited the Newcastle office to observe what had happened to the boxes. In nearly all cases the boxes had been opened on the first day, Monday, but the task was not carried out until the Thursday or Friday. Sid also observed this and noted that some of the artefacts were created with the attitude ‘I’ve got to do that on top of a day job’, as ‘a homework exercise’ or just ‘for the sake of it’. Sid attributed this to individual attitudes and to people’s workload at the time.

Familiarity

The sketching and model making required by the box task were familiar design practices to the participants. Sid questioned whether this familiarity made it difficult to motivate people to engage with them. Sid contrasted Ryder’s position with that of Company A, who the researcher had discussed with him, saying:

> If you got just some bits of coloured things out with some shapes on it, [Company A] had never seen coloured things with shapes or whatever, so they engaged with that more. I think with people here, it's probably harder to engage them with something that's a little bit closer to what they do. You almost want to take them out and get them to make [Company A's products].

This was supported by the experience of architect Pat, who described how he had 'tried to apply some of the things that I do at work' in terms of model making. However, several of the participants explained that whilst the design practices may have been familiar they were not actively engaged with them. Architect Vicki described the experimental nature of the box task as not fitting with the day to day work she carried out but that was not a problem as she had similar experiences earlier in her career. Vicki said that it had been 'difficult to get my head to that mind set' but that once she had done so it was 'refreshing'.

Sensemaking

All three of the participants who were interviewed described having been confused when they first opened the box, read the brief and examined the tools and materials. This confusion was followed by a desire to make sense of those things and a belief that they would be able to do so. Pat admitted to being 'pretty confused', 'stumped' and needing to scratch his head. He described how he had 'tried to make sense of it a little bit more'. He explained that it was 'logical' that he would make sense of the things in the box by creating artefacts with them. In contrast Cynthia and Vicki both made sense of the box contents by discussing it with colleagues, including each other.

The outcomes needed to be clear

The outcomes from the box task were to be a series of insights into the existing design practices of the participants that could be discussed with senior management. The researcher had agreed this with Sid when planning the box task and Sid helped the researcher refine the outcomes when the box task had been completed. Sid recognised the qualitative nature of the activity and during interview confirmed that the outcomes did not need to be 'measurable' or 'have data behind them'. However, the outcomes did need to have 'an analytical

base' that made it clear what the inquiry had been about.

Strategic alignment of the intervention

Following several discussions with Sid the researcher presented the outcomes of the box task as being concerned with materiality. This was done with the intent of aligning it with a recently announced strategic aim of the organisation to develop material expertise. In this respect, senior manager Dennis described the researcher's presentation to the leadership forum as being 'timely'. Dennis's view was not widespread though as senior manager Bill described the presentation as being 'over our heads to be honest, me especially. Well not just me. I know others'.

8.4 Emergent design practices

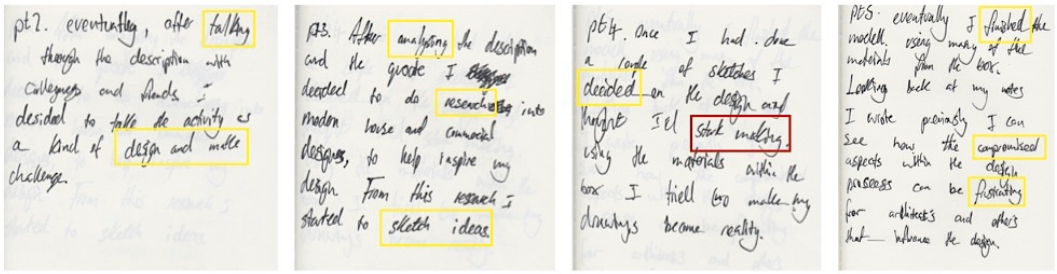
8.4.1 Introduction

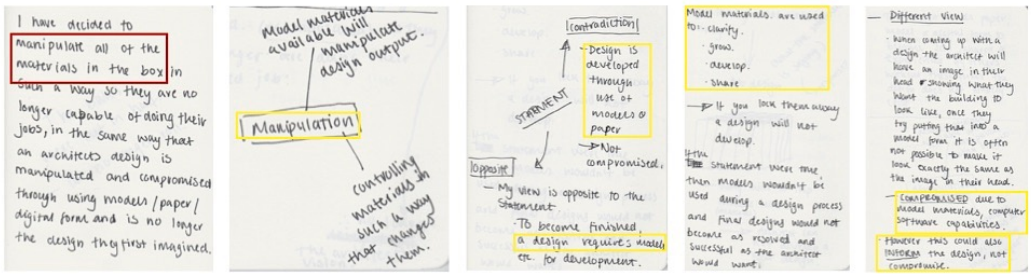
The design practices described in this section are ‘emergent’ insofar as they were in the process of coming into being during the time of this study and in each case the researcher’s intervention helped them to progress. The contribution of the researcher’s interventions was to enable existing design practices to either be shared or become active, and to provide additional motivation by validating those design practices.

The design practices of model making (s.8.4.3) and ‘why we draw’ (s.8.4.4) are straightforward in that people were already actively engaged with them and the researcher’s interventions influenced them to take further action. Senior manager Andy described this ‘external influence’ as being a process of ‘osmosis’ whereby the interventions helped Ryder to ask the questions of themselves: ‘are there different ways in which we can work, are there different ways in which we could do things?’ Andy also saw a benefit whereby the interventions helped existing but ‘disparate’ design practices to ‘crystallise’.

The design practice of Sid’s collaboration with the researcher (s.8.4.2) is different as it could be argued that it was a design practice introduced by the researcher and should be dealt with in section 8.3. However, Sid’s involvement, from the initial workshop through to the presentation at the management forum, was initiated by Sid and was part of a wider strategy of collaboration with external experts being pursued by senior management.

8.4.3 Emergent design practices: collaborator





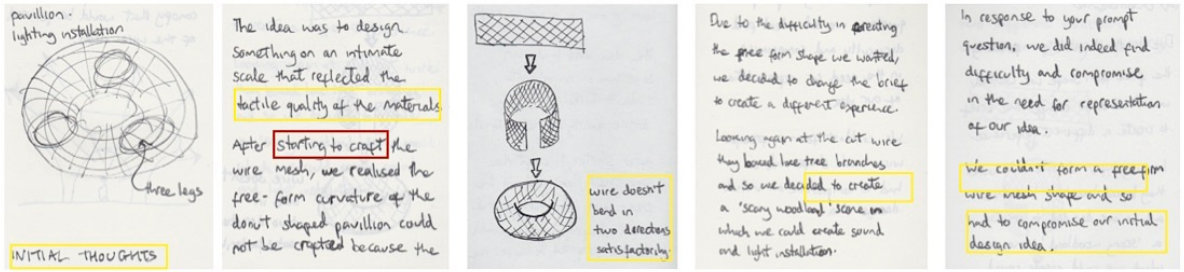


Figure 8.10 Images developed by the researcher and Sid for the presentation to senior management

Following the initial workshop, a group discussion between the participants and the researcher took place in July 2014. At the end of that discussion manager Sid volunteered himself to be interviewed individually by the researcher. During that interview, in October 2014, Sid expressed his dissatisfaction with the lack of emphasis placed upon sketching and model making by the organisation. He articulated this by saying:

> my ambition is to try and create, find a way of opening... up the way we work to allow people space to work creatively.

Sid also expressed a desire to work with the researcher to initiate a further intervention that would seek to address these issues. That intervention became the box task which took place in September 2015, with the artefacts being exhibited in December 2015 and the researcher reporting to senior management in January 2016. Throughout that fifteen-month period the researcher exchanged emails and had meetings with Sid on a regular basis. The purpose of that correspondence and those meetings was to develop the proposed intervention in terms of the activity and where it would be situated in the organisation.

- ❖ Who engaged in the design practices

These design practices were engaged in by an expert designer from within the organisation, manager Sid, working with an external expert designer, in the form of the researcher. Together they were jointly responsible for initiating the design practices described in relation to the box task. Mid-way through the collaboration senior manager Andy was actively engaged to act as sponsor for the project.

Engagement by senior managers

Sid recognised that there had been a risk that the collaboration may not have resulted in any valuable outcomes for the organisation. Sid described being aware of that risk because he had spent a lot of time responding to senior managers asking ‘what are you doing?’ and because the collaboration has taken over a year. Sid described how he had managed that risk by asking

senior manager Andy to act as sponsor for the project. Andy's role was 'validating' and 'cross-referencing' the discussions Sid had had with the researcher. Sid described this process as being:

> just going, 'I'm not nuts, here, am I; this isn't just a waste of time?' and somebody else saying, 'yes, I understand what that's about', and that was quite an important process … because it validated the time spent on it, and the investment in it…

Sid gave an example of this process in relation to the exhibition of the box task artefacts. Andy had commented to Sid that he did not understand what the exhibition was 'trying to say'. Sid's response was that it was part of larger process and that 'it's not trying to say anything yet'. Andy accepted this explanation due to his role as sponsor.

- Where the design practices were situated within the organisation

This was an established area of design practice within the organisation in that there was a long-established culture of collaboration both with external designers and with academic organisations.

The meetings between Sid and the researcher all took place at Ryder's head office in Newcastle.

- The role artefacts played

Most the collaborative activity between Sid and the researcher took the form of discussion at meetings and exchanging emails.

Prototyping

The researcher made a series of prototypes for the box task. These prototypes were taken to meetings with Sid so that he could understand how they might work.

Familiar processes

During the first interview Sid explained he kept a notebook with him always:

> I just draw everything... so anything that I have as an idea or a thought or just something that I see, so it's a combination of kind of stupid things and things that are work related and other things that I've drawn while I'm here talking to you.

Accordingly, during the collaboration, the researcher and Sid used identical notebooks, created by the researcher, to write and sketch.

Reflection

Following the box task both Sid and the researcher spent time reflecting upon the artefacts that had been created by the participants which consisted of models, notebooks and photographs. These reflections were captured in the presentation document for the leadership forum.

- ❖ The motivation for designing

Champions as a strategy

Senior manager Bill explained that collaborations came from many sources but that increasingly they were following a strategy of introducing external people into the organisation and seeing what happened. Bill explained that the researcher was a 'prime example' of this and that 'Sid picked up on it and followed through with it and became a champion'.

Understanding how to effect organisational change

Sid explained that his initial expectations had been that the intervention would make 'big difference to the way people work' but that as the collaboration had proceeded he had realised it was likely only to make a small, 'subtle' change. Sid described how the intervention 'just nudged [people's] direction a little bit' and did not represent 'an about turn' or a 'dramatic amount of change'. As a

result, Sid planned to test his hypothesis much earlier in the design process, to see if his thinking was correct.

Strategic alignment

Sid described how he had learnt the need to 'tie [the intervention] to what we actually do a little bit more'. He explained that he could do this because he had in-depth knowledge of the organisation, unlike the researcher:

> [the researcher] having an outside view is good, in terms of being able to have an objective look at what we do as a process. But sometimes... I probably needed to just take it away and think about how it would apply to what we do, from my perspective, as somebody who has been here for quite a long time…

Exploratory approach

Sid described his approach to the collaboration as being exploratory in that there was not 'an overarching direction' he was pursuing. He recognised that whilst there was not an explicit brief for the collaboration he had been engaged in discussions within the organisation over a long period around the topics of sketching and modelling and that these had influenced him and created a personal aspiration. Sid saw the collaboration as having 'fluidity of process'.

Sensemaking

Sid explained that initially his role in the collaboration involved 'listening, trying to understand where it was going and then maybe trying to shape that a little bit... It was definitely a wait and see approach'. However, he noted that there was a tipping point just before the box task where the amount of time spent and the number of other people engaged meant that he needed to start making sense of the project, and 'understand what we wanted out of it'. After the box task had been completed he again needed to make sense of the project so that, as well as being able to describe the design activity that had taken place, he could draw out the 'really important things'. This took the form of Sid contributing towards the presentation to the senior managers (fig. 8.9).

New design practices had to compete with existing responsibilities

Sid explained how the collaboration had to compete with his regular practices within the organisation and the risk that if he tried to combine it with his other work 'there's fifty things that are more important than [the collaboration] and it slides down the list'. Accordingly, Sid dealt with this by limiting his involvement to time spent in meetings with the researcher and by allowing the researcher to take a more active role.

Design education

Throughout the course of the collaboration Sid repeatedly referred to the experiences he had studying architecture at university. Sid referred to his belief that creating artefacts was critical to designing:

> I thought if you weren't drawing things and working things out properly then you weren't really designing anything, I didn't think that... the process of just having a think about something was valid…

The impact of a sustained presence

Sid explained that to achieve his ambition of changing the creative processes within the organisation it would mean 'slowly changing the way people work' and several interventions. He identified both the initial workshop and the design review meetings as being such interventions.

When asked to explain how those interventions needed to relate to other activity within the organisation Sid replied:

> It is a case of little things coming in from different directions and having varying levels of influence. It helps if you have a lot of people who are similarly minded, or at least have, maybe not similarly minded but… they all come towards the same point at some point.

Senior managers Bill and Dennis also suggested that convergence was important. Bill connected his recent experience of a Harvard University design thinking course with the researcher's interventions whilst Dennis connected his

‘why we draw’ project.

The impact of conversations

Sid described the impact of the collaboration on him as being a shift from feeling negative about Ryder’s creative practices to feeling ‘quite excited about the way we’re starting to work now’. When asked to explain how this shift had come about Sid explained that changes had been made to several of the organisation’s processes which meant that more people were working in a way that was ‘productive and challenging’. Whilst not directly linked to the collaboration, these changes had taken place in tandem with the regular conversations with the researcher and with Sid understanding the ‘limited impact’ of the intervention on participants and the ‘bigger impact you can have by influencing [senior management]’. Accordingly, Sid believed that the collaboration had made him ‘understand how you can effect change here’.

8.4.3 Emergent design practices: model making

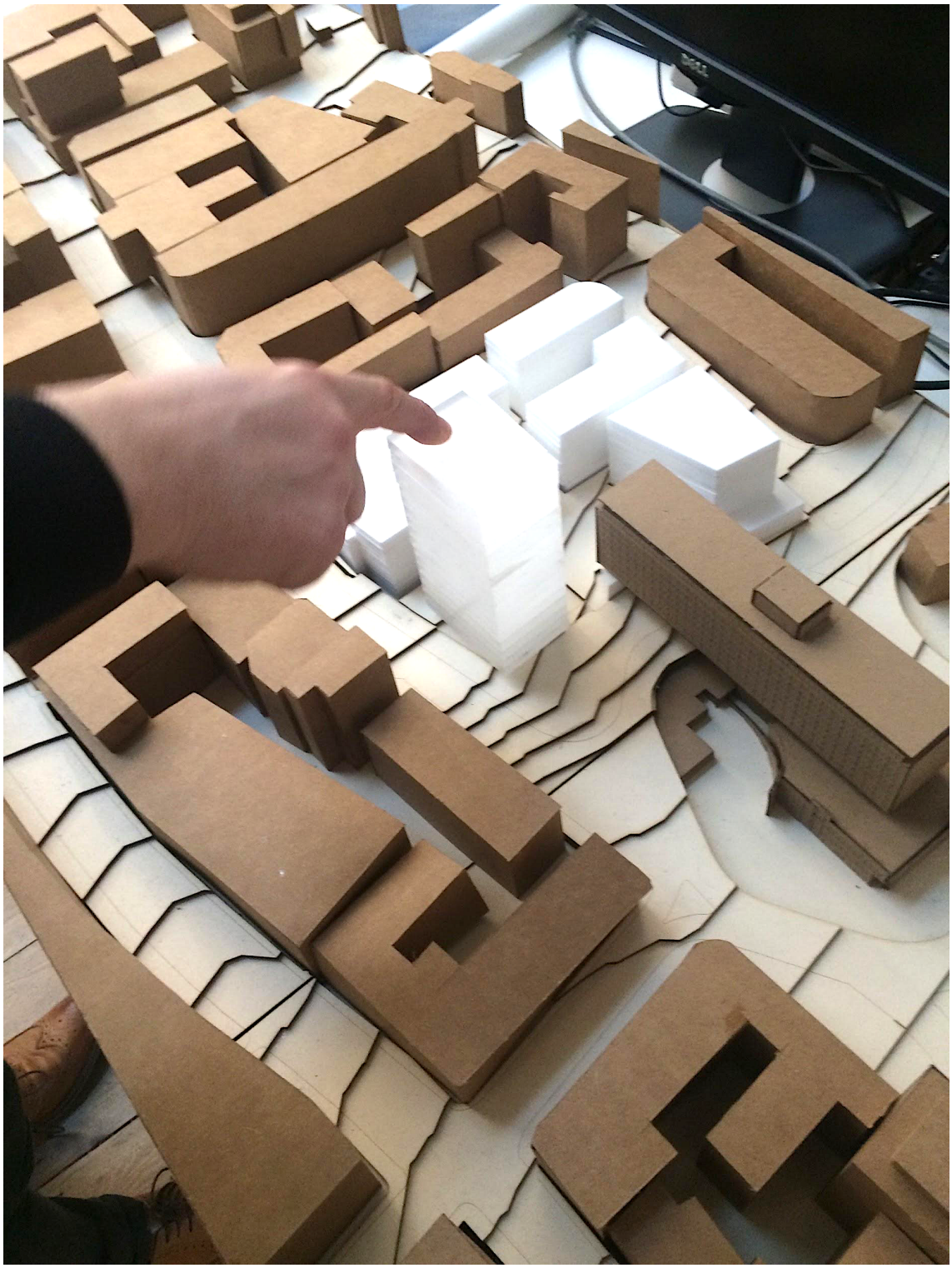


Figure 8.11 Manager Sid moving objects around one of the models created using the new model making machine

Shortly after the researcher's presentation to the leadership forum the researcher carried out interviews with senior managers Andy, Bill and Dennis. All of them recognised that the purchase of a model making machine was a tangible outcome of the researcher's intervention. However, they also recognised that as the machine had not yet been installed in the head office it was too early to say how it would be used. Dennis went further by questioning whether the decision was 'too literal', a response to the researcher's suggestion that they engage more in modelling. Accordingly, a year later the researcher met with manager Sid to discuss this. Sid showed the researcher the new machine and several models that had been made with it (fig.8.11).

- Who engaged in the design practices

These design practices were engaged in by many of the expert designers in the organisation, in particular architects and managers.

- Where the design practices were situated within the organisation

Whilst using a model making machine was not an established design practice within the organisation it was familiar to many of the people either through working in other architects' firms or as part of their design education. The machine had a dedicated space in the office and the models were displayed in prominent locations around the head office.

- The role artefacts played

The models helped establish context

Sid explained how the laser cutter enabled people to create a wider range of models. It enabled them to make models of the site surrounding a building and then test a model of the building within that context. Sid explained that 'conceptual models of a building don't mean a lot without the context'.

The transition from sketch to model was easier

The machine, a laser cutting machine, enabled people to move quickly from a hand drawn sketch to a physical three-dimensional object. Sid explained that in the past amount of detail required by 3D printing or the cost of professional model making were barriers.

The models were easy to change

The simple nature of the models - two dimensional shapes built up in layers to make three dimensional shapes - made it easy for people to change elements of the model.

The models made were accessible

Rather than the models made remaining on the desk of the architect who had made them a place had been found in the office to display all models so that other people could see them.

❖ The motivation for designing

Buy in from senior management

Dennis explained that prior to the researcher's presentation at the leadership forum he had already been considering how the Glasgow office, where he was based, could move towards more informal model making. Dennis described how he had 'sensed out of the discussion with [the researcher]' the need for a dedicated space for model making and so had 'set aside an area' and set up a hot wire tool to cut polystyrene shapes. He had also arranged for his chief model maker to give a talk to the rest of the office.

Access to resources

Sid explained that before purchasing the model making machine there was only a 'little crappy bit of the back corner of the office' to make models and no

dedicated space. Access to the machine was also part of a wider process of restructuring the office ‘to try and bring more tactile working space back into the office’ that was more conducive to sketching and modelling. Sid explained that without access to the machine and these other changes ‘no-one would have bothered [making models] before’.

Creating artefacts as tools for thinking

Dennis explained how he wanted Ryder to move away from ‘formal finished’ model making and instead move towards ‘design development’ model making. When asked to explain his motivation for this form of design practice he complained about a tendency to move quickly from initial hand drawing stage to ‘the stage where you’ve got a lot of definition’. He explained that between those two stages was an opportunity to ‘play’ with artefacts in order to think about the wider aspects of projects. He described play as being perceived as ‘time wasting’ but that he viewed it as being ‘constructive’. He described this form of design practice as being ‘a mechanism for thinking’.

8.4.4 Emergent design practices: why we draw

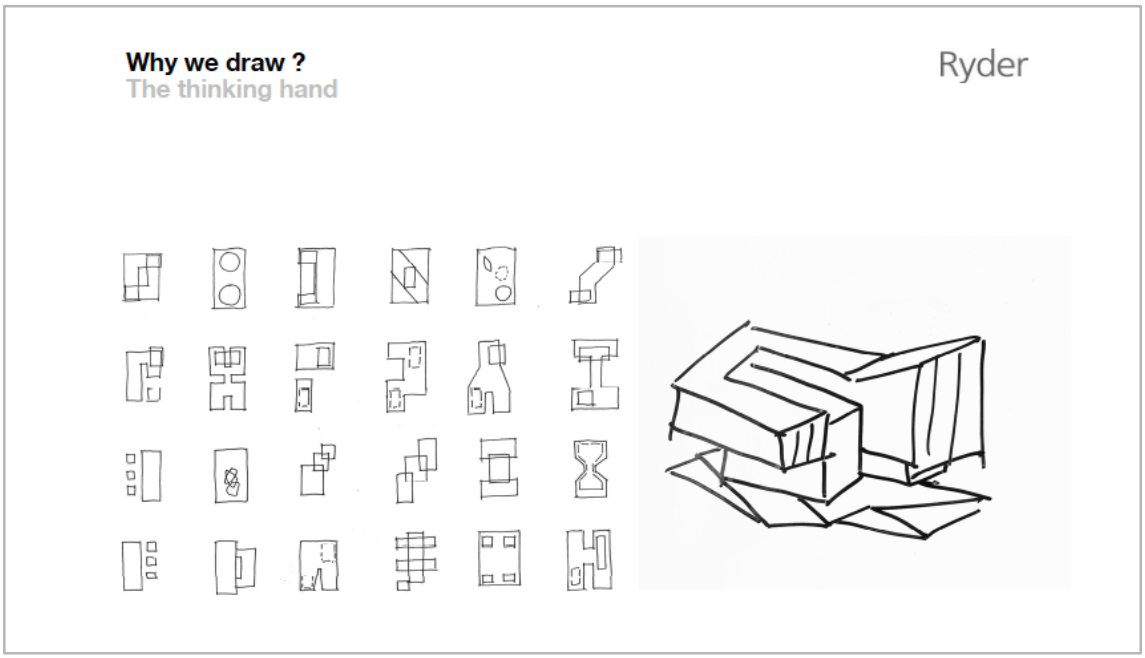


Figure 8.12 Extract from senior manager Dennis's presentation 'why we draw'

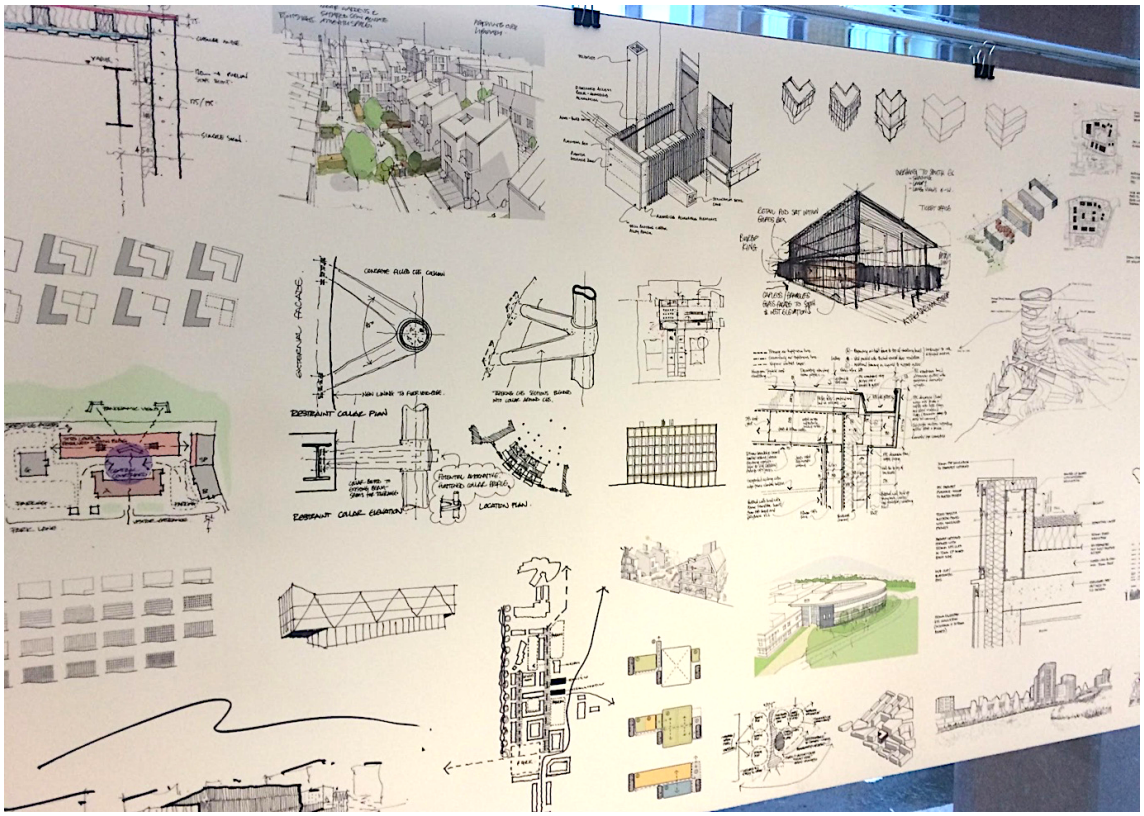


Figure 8.13 Permanent display of sketches in Ryder's head office

Following the researcher's presentation of the box task findings at the senior management meeting the researcher received an email from senior manager Dennis, who had been in attendance, stating:

> I really enjoyed your workshop on materials and making. It chimes with work I am doing as an extension of University research on why we draw as an approach to thinking and making.

The email went on to refer the researcher to several academic works regarding thinking and making.

In response to the email the researcher arranged a Skype interview with Dennis to discuss Dennis's work. During that discussion Dennis explained that he was planning an intervention to actively engage people in sketching and to then share the artefacts created. At the time of the discussion Dennis had begun drafting a written proposal that would be discussed at an upcoming weekend retreat that would be attended by all managers and senior managers.

In due course Dennis presented his written proposal, titled 'why we draw' (fig.8.12). This was later acted upon by all the expert designers within the organisation contributing sketches that were then combined into an exhibition. The exhibition was displayed at a local art gallery before being put on permanent display at Ryder's head office (fig.8.13). Whilst the researcher's presentation and subsequent discussion with Dennis may not have affected his ultimate course of action, the findings below arguably show that they did affect his thinking and provided additional motivation for him to act in the way he did.

- Who engaged in the design practices

These design practices were engaged in by an expert designer from within the organisation, Dennis, who was responsible for implementing the design practices, working with all the other expert designers in the organisation, including junior architects, managers and senior managers.

❖ Where the design practices were situated within the organisation

This was not an established area of design practice within the organisation as until then sketching had been taken for granted with the assumption that everyone sketched. This was an attempt by Dennis to get all the expert designers within the organisation to actively engage in these design practices and to then share those design practices. It had been a familiar design practice but Dennis argued that not everyone actively engaged in it and it was not shared.

❖ The role artefacts played

Provocation

Dennis's intervention used artefacts to provoke a response. This was evident both in the presentation (fig.8.12) and in the subsequent creation and display of the sketches (fig.8.13).

❖ The motivation for designing

Belief that design practices could lead to organisational change

Dennis's main motivation was that he wanted to change the organisation so that the act of sketching was emphasised within both processes and policy. He explained that in his view sketching at the very beginning of an architecture project was valuable as it provided a 'touchstone' for what they are going to do.

The impact of conversations

During the interview Dennis and the researcher discussed how the knowledge that resides in architectural sketches might be captured and then shared with other people. Dennis's suggestions included storyboards and short videos. Dennis then considered how those suggestions had come about during the interview, stating:

> ...discussions like this are how we develop tools. Unless we have discussions like this, we don't think about things. You don't actually think; well what use would that be? So in the time that we've talked about this, I'm suddenly thinking, maybe we should do more of that. Make films and stuff. Capture [sketches] in animations.

Dennis explained that he was attempting to capture the 'thought processes' behind the sketches. He then confirmed that his thinking was similar to that of the researchers by stating:

> I'm not saying I've got a solution to that. What I am saying is, like you, I think that's an interesting point to discuss.

8.5 Summary

An overview of the key findings has already been provided at the beginning of this chapter (s.8.1). Like the previous chapter, this chapter has demonstrated that the theoretical model of CoDP is an appropriate inquiry tool for understanding design practices and that the findings it generates are useful in beginning to construct a more detailed model of CoDP.

Adopting a CoDP model has revealed that:

- artefacts and collaboration both had key roles in engagement;
- strategic alignment to existing organisational aims was important; and
- the design attitude adopted by the researcher was based upon provocation but later gave way to influencing through conversations.

The researcher's approach of influencing through conversations, and its relationship with provocation, is discussed in detail in the next chapter (s.9.4) as a form of critical dialogue.

In relation to the infrastructure needs of CoDP, the key findings in this case study suggest that the following needs may also be important:

- design champions; and
- a less strategic form of alignment.

This other form of alignment is discussed in chapter 11 (s.11.3) in the context of the situated approach advocated by Deserti and Rizzo (2014a) and Junginger (2009).

These findings are discussed in detail in chapters 10 and 11 which include a discussion as to why some of the findings were different between the two case studies.

Chapter 9

Researcher's personal narrative

9.1 Introduction

This short chapter attempts to step back from the case studies and give insight into the development of my own design practice during the same period. The change of focus from 'the researcher' to 'me' in the first person is entirely intentional as this is a subjective, personal account based upon my reflections and meta reflections as recorded through writing and sketching in my journals.

The result of my reflective process was to document a series of thoughts about what I was doing and why things were happening. Accordingly, these thoughts are at the same time a form of both data and analysis. In order to make these thoughts relevant to the research questions I will discuss them in this chapter in the context of how creating artefacts was fundamental to my practice (s.9.2), the different roles I played (s.9.3) and my relationships with the participating organisations in terms of my experience of making transitions between being an insider and an outsider (9.4).

9.2 Creating artefacts

9.2.1 Introduction

It may sound obvious that, as a designer-practitioner-researcher, creating artefacts was fundamental to my practice. However, in this section I discuss why I created artefacts and the nature of the artefacts I made, in order to understand the role this activity played in my practice.

The artefacts I created served two purposes: to act as provocations to the participants and as a reflective tool.

9.2.2 The need to be provocative

The provocative artefacts I created ranged from the individual written and visual prompts used in the initial workshops to large objects created specifically for subsequent interventions. Two examples of these large provocative objects were the map created for the Company A map making workshop (fig.9.1) and the boxes made for the Ryder box task (fig.9.2).

Figure 9.1 The empty map

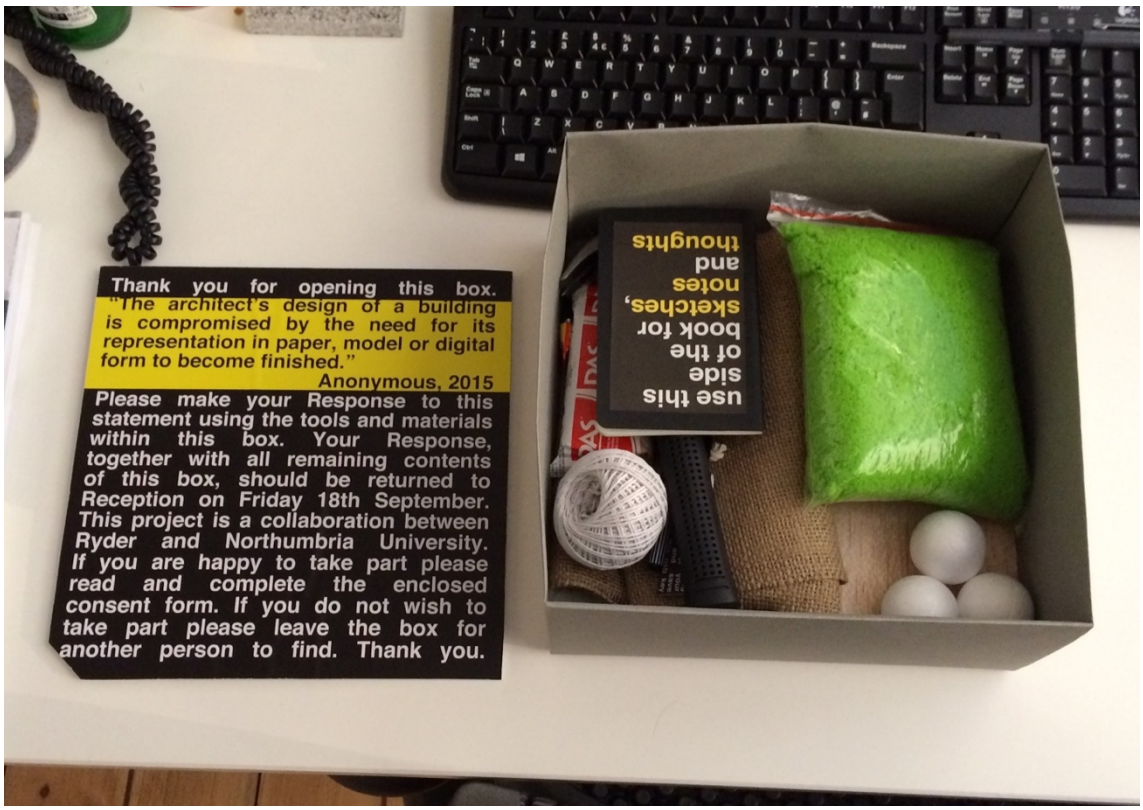


Figure 9.2 Inside one of the boxes

The individual prompts used in the initial workshops were open ended and not specific to any particular organisation. In sharp contrast the large objects were created using the contextual knowledge I had gained through reflecting on the initial workshops, interviewing participants and observing existing design practices.

In Company A's case it had become clear to me that a lack of design awareness outside of a few areas of the organisation required some sort of transformative leap, to enable people to grasp that they could use design practices in a way that was potentially helpful to them. The scale and blankness of the map was intended to make it appear an impossible task, which later when completed would help build people's confidence.

In Ryder's case I felt under pressure to assert myself professionally as a designer. Having spent considerable time observing and participating in Ryder's existing design practices I was conscious that almost everyone in the organisation was actively engaged in creating or using beautiful plans and models. Before I could provoke them I needed to show them that I could create

artefacts that belonged in the same environment as the ones they were used to. My fear was that people would think ‘this guy calls himself a designer but look at the things he’s produced’. For the provocation to succeed the artefacts also needed to be compelling and inspiring: they needed to be perceived as being sufficiently valuable as to be worth people responding to them.

This notion of ‘value’ was important to my personal motivation as well. The exploratory nature of both case studies meant that for long periods of time I was unsure of the outcomes, both for the organisations and from a research perspective. Creating objects helped to create some tangible outcomes for me and provided motivation for me to continue. Creating artefacts also allowed me to feel that my own practice as a maker was both continuing and progressing. An example of this continuity was in the box task when I used some of the origami skills I had learnt from fellow students during my earlier master’s course to create the boxes.

In both cases I wanted the provocations to be enduring and effective when I was not there. This required artefacts that could not easily be hidden or integrated or assimilated within the organisations. In Company A’s case the sheer scale of the map meant that a new space had to be found to accommodate it, leading to a disused staircase and office suite being repurposed for several months. In Ryder’s case I had observed the large open plan desk areas in their office and so the contents of the boxes were meant to spill out onto these desks and be visible to everyone in the organisation.

9.2.3 Using and creating artefacts as a reflective tool

The wide range of data – including observations, artefacts, photographs, video, surveys and interviews – meant that I found it difficult to make sense of what had happened in the immediate aftermath of each of the design interventions. I would always start by going back over my own notes before returning to the wider body of data I had accumulated during the research study. At that stage I would usually have conversations with my fellow PhD students and supervisors within the Design School. I would show them artefacts created by participants and tell them what had happened. This allowed us to begin speculating as to

why people had acted as they had and what my response might be. I found these conversations helpful as they enabled me to say ‘I think this is what happened’ or ‘I don’t know what happened’ or ‘someone made this model and I think it’s interesting’. I found these conversations profoundly helpful. People understood my practice as they had usually seen me creating artefacts, or had seen artefacts piled high on and around my desk, or, in several cases had helped to facilitate a workshop based intervention with me. As a result, the conversations were almost entirely positive with a common response being ‘yes that’s interesting but these things are interesting as well’.

Towards the end of this research study I also began creating artefacts as part of my reflective-sensemaking process. This occurred both knowingly and unknowingly. In the Company A’s case study, the potential importance of *unfinished* artefacts began to dominate my thinking following the end of the map consultation. In order to understand how the concept of unfinished artefacts might work visually I began making a poster based upon the initial findings in the Company A case. This poster (fig.9.3) became the backdrop to a presentation I made at a Swiss Design Network symposium (Green, 2016) and was later used by Lynda at Company A as part of a presentation at a human resources conference.

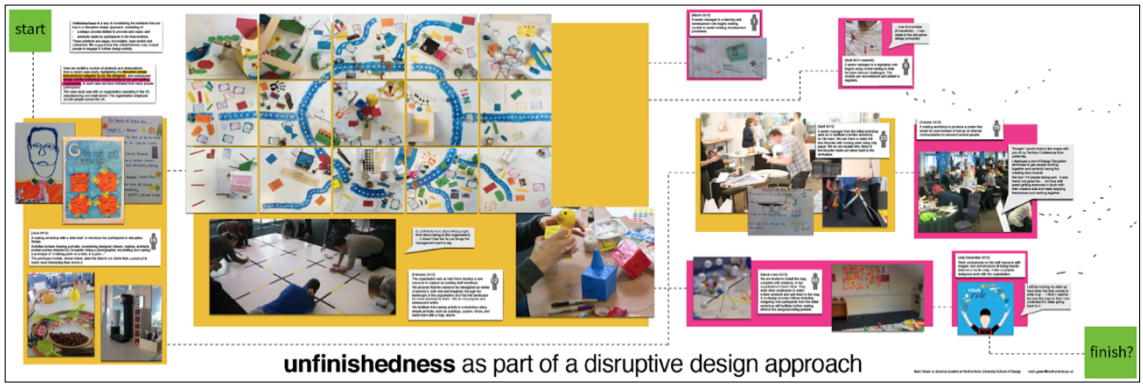


Figure 9.3 Unfinishedness poster

A further example was the exhibition based upon the Ryder box task. As I have explained elsewhere the exhibition was largely unsuccessful when judged against the aim agreed with Ryder of engaging more people in the project. However, on reflecting back upon it I realised that I was unsure of what the

participants' responses to the box task meant. Neither the models nor the diaries made any sense to me. By creating the exhibition, I was able to spend several days photographing the models and putting the diaries into a format where they could be seen as a whole (fig. 9.4). This enabled me to immerse myself in the artefacts and develop a number of insights that would become my recommendations to Ryder.

Figure 9.4 Photographing the models made during the box task

9.3 Role playing

In order to try to understand the different roles I played during the research period I used the seven roles of designers, constructed from the roles proposed by Yee et al (2009) and Howard and Melles (2011) and discussed above (s.4.2), as a series of reflective lens. The results were as follows:

Facilitator

It was important to me that the design interventions took place in a safe environment. That was one of the principle reasons for the initial workshops taking place within the Design School and in the case of the Company A bicycle making workshop the use of an independent arts centre.

In terms of facilitating conversations, the provocative artefacts I created served the purpose of starting conversations. My role in the workshop based interventions was more to join up conversations, making connections between people and artefacts.

Communicator

The use of provocative artefacts to initiate conversations, to further communication, overlaps with my role as a facilitator. I used a series of tools to help communicate ideas. These included the ‘book of thoughts’ probe given to participants before the Company A’s map making workshop and the detailed instructions printed on the underside of the box lids in the Ryder box task.

I also recognised that there was a physical limit as to how much I could communicate to people myself. This led to me showing people short films made by other people during breaks in the workshops and later making a stop motion film of the making of the Company A map.

Teacher/capability builder

The lack of a coherent design process and design interventions focused on creating artefacts, where people would learn through doing, meant that I rarely occupied the role of teacher/capability builder. I was only ever introducing people to fragments of design practices - the real aim was to encourage the use of design as a form of inquiry into organisational life. This approach was very hit and miss. Rather than being able to say that a group of managers had all been trained in using particular design tools or processes I ended up with many people who had experienced enjoyable design led workshops, a small handful of people who had used the design practices again and just two people, Lynda at Company A and Sid at Ryder who had begun to use design practices to develop insights into how they might affect organisational change.

Design lead/strategist

To a large extent this mirrored the role of teacher/capability builder in that it was a role I rarely occupied. The interventions were purposefully unpurposeful and there was not a clear strategic aim in either case study.

I had to spend a lot of time championing the introduction of new design practices and the support of emergent design practices. I found this a difficult role to perform as it meant telling people that we should continue because ‘something interesting might happen.’ This became far easier once design champions began to emerge in each of the case studies as they were able to share this role.

Researcher

My role as ‘researcher’ did not fit the activity described by Yee et al which is based upon the role of a designer-practitioner. As I was a designer-practitioner-researcher the main aim of my ‘research’ was to progress my academic research by obtaining data that was relevant to my research questions.

Most of the academic research activity took place outside of the organisations when I was planning, analysing, reflecting and writing. Obtaining ethical consent and survey results from participants was done at the beginning and end of each design interventions in order to make sure they did not interrupt people's experience of new design practices. The most intrusive research activity was interviewing when it was obvious to people that the main role I was performing was that of academic researcher.

As the case studies progressed the nature of the interviews began to change in two ways: firstly, by inquiring more into how the organisations developed new practices and secondly, by becoming less formal and more collaborative.

The move from only asking questions about people's experience of the design interventions to inquiring into how the organisations developed new practices came out of the initial round of interviews with participants from Company A. It appeared to be common ground between several interviewees that design practices – ones that involved creating and using artefacts – were not used to generate new ways of doing things in areas outside of marketing, product and shop development. In response to this I began asking the question 'how do you find out the stuff you don't know?' I continued to ask this question in both case studies throughout the research study. This led to a series of conversations about how the organisations initiated organisational change and, in a few cases, people began to identify the introduced and emergent design practices as a means of developing insights into creating this sort of change.

The interviews also changed as people experienced multiple design interventions: their roles began to change from being a participant towards being responsible for the design practices. This form of ownership and collaboration was particular to Lynda at Company A and Sid at Ryder. As a result, the interviews became increasingly focused upon how introduced and emergent design practices were being used and how they might be developed further.

Entrepreneur

Whilst I did not get involved in trying to commercialise or make profitable any of the outcomes from the design interventions I did spend time asking the participants how *they* were going to make the outcomes useful. The extent of my role was in offering guidance as to how the emergent design practices might be sustainable. An example of this was my talking to Lynda at Company A about how she could use the new ways of working she had established in the future.

Director/co-creator

During the course of both of the case studies my role made the transition from 'designing for' the participants, acting as a director who creates 'a design experience' (Howard and Melles, 2011), towards 'designing with' participants as a co-creator (Yee et al, 2009). This transition was linked to several factors, including the emergence of design champions, and was part of a greater transition which is discussed further in the next section.

On reflection the creation of 'a design experience' was of real importance in the initial workshops. As well as creating provocative artefacts and planning each of the designerly activities that would form the workshops, I took great care in setting out the tools and materials for each workshop so as to suggest that they and the activities they related to were valuable.

Overlapping roles

I found that these distinct roles often overlapped and that I would be performing two or three roles all at the same time. I also found that the roles of the 'designer' overlapped or built upon roles I had performed in my earlier career as a lawyer. My experience as a lawyer involved facilitation, communication, teaching, leading groups, developing strategy and research - all of which can be read directly into the proposed roles of designers. Whilst there are substantial differences between those roles as performed by lawyers and by designers, not

least the focus on design practices and the creation of artefacts, I found it helpful to have comparable experience from another discipline to call upon. It allowed me to be comfortable being the outsider and gave me the confidence to challenge senior managers.

Links between roles

As well as this overlapping some of the roles began to establish links as knowledge gained by me in one role would be applied in performing another role. These links were most evident between the roles of researcher and director/co-creator. As the two case studies progressed the initial research findings began to influence the nature of the design interventions. The most pronounced incident of this was when the initial findings that the artefacts created in the Company A case study had an *unfinished* quality. My thinking about this led directly to the Ryder box task containing the provocation:

> The architect's design of a building is compromised by the need for its representation in paper, model or digital form to become finished.

This spilling over was important to me as it helped to make some of the initial findings real and tangible. I don't think it had a material effect on the impact of the design intervention with Ryder but it did allow me to start applying my thinking akin to thinking out loud.

These links between roles were possible because I was working with multiple case studies and multiple design interventions over a period of two years. This allowed new thinking to ferment and then spill over. It also allowed thinking from one case study to be applied in the other.

9.4 Transitions between insider and outsider

In both case studies there were only three distinct points in time when I felt entirely sure of my relationship with each organisation:

- When I first met the groups of participants at the initial workshop. At this point I felt as though I was acting as an *outsider*. The fact that the initial workshops were held in the Design School meant it felt as though the participants where there to gain some experience at the periphery of my design practice and that of the Design Disruption Group.

- When I had begun initiating subsequent design interventions that took place within the offices of each organisation. This coincided with me being allowed to visit their offices, to drop in, unannounced and less formal conversations with the people who had emerged as design champions. At this point I felt as though I was acting as an *insider* – although not employed by the organisations I felt as though I was part of the organisations.

- When I left the design champions to continue using the emergent design practices without my help. In Company A's case this was when I visited Lynda and she was in the midst of the map consultation. In Ryder's case this was during the presentation to the management forum, once people had agreed to take various actions based upon my recommendations. Whilst this was not the last time I visited either organisation it was the point I felt as though I was an *outsider* again, as though my work as an insider had come to an end.

On reflection, I now feel that in between these points I was simply transitioning towards the next point: from outsider to insider and then to outsider again. This is consistent with Dwyer and Buckle's (2009) argument that the positioning of the researcher and the relationships with subjects is always changing. It also means that whilst there were times I felt I was more of an outsider than an insider, and vice versa, there are no absolute positions and most of the time I was likely to be occupying an intermediate positon, somewhere in between outsider and insider.

The important questions to ask are how these transitions were achieved and what the impact of them was?

Reflecting back on both case studies I feel that the transitions happened because of a series of exchanges made between myself and members of the organisations. The things being exchanged were *trust* in the individual, *responsibility* for design practices and *ownership* of design practices.

When I was initially an outsider I had both responsibility for and ownership of the design practices but I had yet to win the trust of the people participating in the workshops and the wider organisations. It felt to me that I needed to gain trust at two levels: firstly, by proving my ability to competently perform some of the roles discussed above, in particular as a facilitator, and secondly by enabling people to understand that the design practices I was introducing might be valuable at individual and organisational levels. In both case studies these forms of trust were gained through practice, by me performing the roles and by people engaging in the design practices.

Responsibility for the design practices began to transfer from me to members of the organisations as further design interventions were commissioned and as design champions emerged. These two factors were closely linked. In both cases studies the people most closely involved in commissioning subsequent design interventions, Lynda at Company A and Sid at Ryder, went on to become design champions (s.11.5). Taking on responsibility meant that Lynda and Sid began to share with me the reputational risk that the design practices might not be impactful in a valuable way. It also meant that they became responsible for how the design practices would be used, in particular where the design practices would be situated in their organisations. As design champions they also became responsible for my continuing presence in their organisations in that I was understood to be working on a project with them. As a result, this taking on of responsibility coincided with my becoming an insider.

Ownership of the design practices began transferring from me to members of the organisations when emergent design practices were developed. In the

Company A case this meant that people had either taken design practices I had introduced and connected them to their existing practices or, in Lynda's case, they began developing and using entirely new design practices. In Ryder's case the process of transferring ownership was less gradual and more sudden as the design practices were owned by me until the very end when a series of actions were taken in response to my presentation to the senior management forum that resulted in new design practices. It was at these points that I once again felt like an outsider.

Whilst I gained trust at early stages during both case studies, it had to be maintained throughout the periods of my involvement. In Company A's case this was achieved through multiple interventions, with an awareness building within the organisation that each intervention was perceived as having been successful. In Ryder's case, because of the lengthy period between the initial workshop and the box task, trust in me was maintained by seeking a project sponsor, Andy, which enabled senior management to be fully aware of the development of the box task.

9.5 Summary

This chapter has demonstrated how, in the context of the researcher's own practice:

- Artefacts were created both as part of a provocative approach and as part of a reflective practice model.

- The researcher performed several different roles within the organisations. However, this did not extend to fully occupying the roles of teacher/capability builder, design lead/strategist or entrepreneur.

- The researcher's ability to move towards becoming an insider within the organisations relied upon gaining trust and on members of the organisations taking over, responsibility and ownership for design practices.

The following chapters build upon the data that has been presented and analysed. The issues raised above are discussed both in relation to artefacts (s.10.2) and the impact of such an approach (s.10.4).

Part 3

The purpose of this part of the thesis is to collectively discuss the key findings from the two case studies and the researcher's personal narrative. This will be done by applying the proposed theoretical model of communities of design practices (CoDP) so that the new design practices, both introduced and emergent, can be considered as forming CoDP. The key findings are also discussed in the context of the literature already considered (ch.2-4) and, where relevant, additional literature has been identified. The outcomes from these discussions will then be considered in terms of how they have answered the research question and aims and whether they constitute new knowledge.

Chapter 10

Artefacts and people

10.1 Introduction

This chapter seeks to understand what happens within communities of design practice (CoDP) following the introduction of new design practices in organisations. It does this by discussing the roles played by artefacts and by people.

Artefacts are discussed in terms of their role as a catalyst in forming new CoDP and in enabling CoDP to connect with other communities within organisations (s.10.2).

The people who formed the CoDP were members of the case study organisations and the researcher. The researcher has chosen to focus on the development of design attitude in the participants from Company A, who were not expert designers, rather than the expert designers from Ryder. This is because far less is known about the impact of engaging in design practices upon people who are not expert designers. This is discussed in terms of how design attitude manifests itself and may become embedded in people (s.10.3).

The development and impact of the researcher's own design practice is discussed both in terms the approach taken by the researcher (s.10.4) and the roles played by the researcher (s.10.5).

10.2. The role of artefacts

10.2.1 Introduction

As previously argued, in Chapter 2, artefacts are central to the researcher's understanding of design practices. Whilst others, such as Inns (2007), have described similar design led workshops as forms of 'design thinking' the researcher argues that this is a reductive approach that diminishes the role of artefacts. This is supported by both Cross (2006) and Lawson (2006). Further, by viewing design activity from a practice theory perspective, as advocated by Kimbell and Street (2009) and Julier (2007), the relationship between physical artefacts, as objects, and the people using and creating them can focused on, analysed and then understood. This approach also enables the role of artefacts to be understood regardless of whether the people engaged are expert designers or not, which in this study means that the findings from both case studies can be discussed.

The key findings demonstrated a wide range of responses by members of both case study organisations to the artefacts created by the design practices introduced by the researcher and those that emerged subsequently. People's responses included their response to artefacts created by the researcher, the experience of creating their own artefacts and their response to artefacts made by others. Accordingly, the researcher proposes that the key findings be discussed at both a micro and macro level by considering whether: artefacts acted as a catalyst in forming new CoDP (s.10.2.2), and artefacts enabled CoDP to connect with other communities within the organisations (s.10.2.3).

10.2.2 Artefacts as a catalyst in forming new CoDP

As is discussed elsewhere, members of the case study organisations were motivated both by personal perspectives, in the form of design attitude, and by organisational aims. However, the researcher argues that the artefacts created by the researcher and by members of the organisations were also a motivational factor in encouraging people to use those design practices

immediately, in the interventions they were participating in, in subsequent interventions and, in some cases, in initiating emergent design practices. Further, the researcher argues that the same artefacts were influential in bringing people together into groups. Accordingly, the combination of individual motivation and bringing people together had a catalytic effect and helped to form new CoDP.

In terms of providing individual motivation the key findings can be summarised as follows:

Tools for thinking

People identified the artefacts as having enabled new thinking through inspiration and through making ideas tangible.

Expressing individuality and developing a sense of ownership

People were positive about artefacts they had made themselves, believing them to be a reflection of their own thoughts and ability. Further, several artefacts were taken away at the end of the interventions and some were repaired, suggesting a sense of ownership.

Utility

People were able to envision how the artefacts might be used in the future. The most common uses were communication, reflection and inquiry. These uses involved either a further iteration of the original artefact or creating a new artefact using the same approach.

Making sense

Whilst this was applicable in both case studies it was particularly evident in the Company A case study where people found thinking about artefacts to be an unfamiliar activity. Sensemaking is considered in more detail in relation to design attitude (s.10.3.3).

In terms of encouraging people to work together in groups the key findings can be summarised as follows:

Encouraging conversations

These conversations began at a very early stage and involved people asking others what they were making and how. These conversations also involved the relationship between different artefacts and was particularly evident in relation to the Company A map which was a large artefact consisting of multiple models, sketches and text. This applied equally to expert designers and others.

Mediating and forming consensus

In the initial workshops the artefacts mediated between conflicting views and helped groups to reach agreement. This was achieved through discussion, sketching and demonstrating how artefacts could be made. This was particularly evident when creating protest posters.

Providing assistance

This consisted of people helping each other with the physical acts of creating artefacts. This was more prevalent with people who were unfamiliar with design practices and who may have lacked experience and confidence.

Arguably the relationship between individual motivation and bringing together groups of people is interdependent. Without both it is difficult to imagine CoDP being formed. An extreme view would be that individual motivation may be provided by pre-existing design attitude or by organisational aims alone, however such a situation is unlikely to be sustainable in the long term if people do not positively react to the artefacts that are being created. Further, viewing the relationship as being interdependent is consistent with Wenger's (1998) theory on creating objects through reification. Wenger argues that reification and participation are the fundamental elements required to form communities of practice and that both must be present. The researcher extends this theory to

CoDP and argues that the duality between artefacts and joint participation is an essential component in forming CoDP.

10.2.3 Artefacts as enablers for making connections

The key findings demonstrated that artefacts created both by the researcher and by members of the case study organisations helped to establish connections between CoDP and other parts of the organisations. The following examples illustrate the types of connections that were made:

(a) In both the Company A map making workshop and the Ryder box task the researcher introduced artefacts he had created - the map and the boxes - to act as prompts for further artefacts to be created.

(b) Following the Company A map making workshop the artefacts were introduced to over sixty people from across the organisation as part of the map consultation, who in turn created further artefacts.

(c) Following the Company A map consultation the artefacts were shared, through photographs, with external graphic designers, forming part of their brief to create a new staff handbook.

(d) Following the Company A Halloween workshop one of the posters incorporated into their quarterly retail report and circulated throughout the organisation.

(e) Following the Ryder initial workshop the participants developed the artefacts further in order to create a document that was presented to the senior management team and considered as part of their annual strategic review.

(f) Following the box task the researcher used the artefacts that had been created to create an exhibition that was shared with the whole organisation and a presentation document that was shared with the senior management team.

In order to understand the nature of the roles played by the artefacts and the potential benefits of such connections the researcher suggests that the artefacts should be considered in the context of 'boundary objects' (Bowker and Star, 1999; Star and Griesemer, 1989). In order to do this a useful starting point is Bowker and Star's widely accepted definition of boundary objects:

> Boundary objects are those objects that both inhabit several communities of practice and satisfy the informational requirements of each of them. Boundary objects are thus both plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites… Such objects have different meaning in different social worlds but their structure is common enough to more than one world to make them recognisable, a means of translation. The creation and management of boundary objects is a key process in developing and maintaining coherence across intersecting communities.
> (Bowker and Star,1999, p.297)

This 'common identity', is key to an artefact being a boundary object: in order to be a boundary object an artefact needs to be intelligible to more than one community of practice. Of the examples given above, arguably only the artefacts that were completed by being incorporated into formal presentations (items (e) and (f)) were intelligible to others and therefore capable of being boundary objects. In the other cases some artefacts were intentionally ambiguous (item (a)), some artefacts were unfinished and shared in order to prompt further development (items (b) and (c)), whilst some were shared so widely it is unknown how they were understood (item (d)).

In the case of the artefacts incorporated into formal presentations a great deal of contextual information was also required, in both cases through dialogue explaining the nature of the design practices that had led to the artefacts being created. Even then some members of Ryder's senior management team, including Andy the project sponsor, admitted to not understanding the relevance of the artefacts. Although there is significant literature confirming the need for context in order for boundary objects to be intelligible to other communities (Mambrey and Robinson, 1997; Henderson, 1999; Subrahmanian et al 2003) it does highlight the difficulties faced by artefacts created as a result of exploratory design practices in serving as boundary objects.

Accordingly, the researcher adopts Lee's (2007) proposal for boundary negotiating artefacts: whilst some artefacts may not fit the accepted criteria for boundary objects, envisaged (Star and Griesemer, 1989; Bowker and Star, 1999), they may still be capable of enabling connections between different communities within organisations and can 'establish and destabilise protocols… and be used to push boundaries' (p.307) to drive organisational change. Lee does not argue that the criteria for boundary objects is wrong - rather, that the model of standardised and categorised artefacts considered by Star et al may not automatically fit other types of artefacts.

Lee's proposal is particularly relevant to CoDP as it was based upon a longitudinal study of an interdisciplinary design team within an organisation. Further, the research was based upon a participant-observation and interview approach, similar to that taken by the researcher. What is important about this is that the catalyst for Lee's proposal is the observation that collaborative work within organisations, including design activity, tends to use 'disorderly processes' and produces 'unstandardized artefacts that are partial, incomplete, or are intermediary representations' (p.313). This notion of the perpetual nature of unfinished artefacts is consistent with the arguments made by both Tonkinwise (2005) and Julier (2009) and is shared by the researcher. The role of unfinished artefacts is discussed further in the context of the role of the external designer (s.10.4).

Lee argues (pp.319-334) that boundary negotiating artefacts may exist in a series of five subcategories, as follows: (1) 'self-explanation artefacts' which include notes and concept sketches and used by designers for 'learning, recording, organising, remembering, and reflecting' within their own community; (2) 'inclusion artefacts' which are used 'to propose new concepts and forms' by developing self-explanation artefacts into concepts; (3) 'compilation artefacts' consisting of technical information; (4) 'structuring artefacts' used to establish the narrative of activity, and; (5) 'borrowed artefacts' that are 'taken from... one community of practice and used in unanticipated ways by those in another community of practice'. Lee explains that the final four of these types of artefact are used for 'crossing and negotiating boundaries between communities of

practice’.

It may be possible to fit some of the artefacts created in the introduced and emergent design practices into Lee’s types of boundary negotiating artefacts. However, whilst Lee’s proposals are well argued the researcher’s view is that the suggested types of artefacts are overly subjective and idiosyncratic to Lee’s particular case study of a group of museum exhibition designers. The categories proposed by Lee are not wrong but should be treated simply as examples of boundary negotiating artefacts. Arguably the real value of Lee’s proposal is an understanding that although artefacts created by CoDP may not be capable of being boundary objects, because they are not intelligible by other communities of practice, they may contribute towards connecting with other communities of practice in several different ways. Accordingly, the researcher proposes that rather than seek to categorise artefacts a more constructive approach is simply to ask ‘how does an artefact help to connect CoDP to other members and communities within an organisation?’ The researcher also proposes that unfinished artefacts are a direct consequence of introducing new exploratory design practices.

10.3 Design attitude beyond expert designers

10.3.1 Introduction

The key findings showed that the people participating in the introduced and emergent design practices had a range of motivations for acting as they did. Some of those motivations were organisational and they are discussed in the context of alignment to organisational aims in Chapter 11. However, people also acted upon personal motivations which the researcher will argue were manifestations of their design attitude. Whilst personal motivations were evident in both expert designers (the majority of Ryder's participants) and other people (all of Company A's participants) this section considers design attitude beyond the domain of expert designers, as that may extend what was envisaged by Michlewski (2008) and others. This section also considers how design attitude may become embedded and establish a settled way of thinking.

Accordingly, the key findings are discussed by considering people who are not expert designers and: how design attitude manifests itself (s.10.3.2); sensemaking as an example of embedding design attitude (s.10.3.3); and whether embedding design attitude may be part of a transformation (s.10.3.4).

10.3.2 How design attitude manifests itself in people

Michlewski (2008, pp.381-385) argues that the following design attitudes are pre-existing in expert designers and can be observed in how they engage in design activity:

(a) designers focus on future solutions where they perceive reality and culture as something pliable — their attitude towards workable solutions is 'assertion-based rather than evidence-based';

(b) they connect to work on emotional, rational and aesthetic levels, acting on the assumption that they must be coherently consolidated;

(c) designers rely only to a limited extent on predetermined, cumulatively created frameworks and prefer proposing novel, original forms that challenge the status quo;

(d) designers can potentially stimulate or support change in organizations due to their generally positive attitude towards change itself.

This is supported by the key findings in the Ryder case study as all of these design attitudes were represented by the expert designers who engaged in the existing design practices observed by the researcher as well as acting as motivation in the introduced and emergent design practices.

Looking beyond expert designer to other members of organisations, the key findings in the Company A case study indicate that some of these design attitudes may be demonstrated by people engaging in design practices. In particular, there were examples of the attitudes identified by Michlewski: (b) people connecting to work 'on emotional, rational and aesthetic levels', such as manager Bob recognising the creation of artefacts as being more valuable than existing processes, and (c) 'proposing novel [frameworks] that challenge the status quo', such as manager Keith linking his experience of creating protest posters to becoming an alternative voice within the organisation.

Whilst there were no explicit examples of Michlewski's other two design attitudes - (a) an 'assertion based' 'focus on future solutions' or (d) 'a positive attitude to change' - these can be implied by considering the more wide ranging substantive and theoretical categories of expert designers culture underpinning design attitude. By taking this approach the key findings in the Company A case study demonstrating people embracing an exploratory approach in the map making and map consultation interventions and placing the creation of artefacts at the heart of all of the emergent design practices become relevant and important. The result is the ability to argue that several people - specifically managers Lynda, Keith, Mary and Bob - did between them demonstrate the full spectrum of design attitudes proposed by Michlewski, despite not being expert designers.

In some cases, it was possible to argue that the attitudes demonstrated were pre-existing. For example, in interview manager Mary from Company A expressed a strong pre-existing preference for working with artefacts. However, in the majority of cases people had limited prior experience of engaging in design practices and expressed surprise at their thoughts and actions following their participation in the design interventions - Lynda and Keith were good examples of this.

The key findings show that Michlewski's design attitudes may be demonstrated by all people engaging in design practices. A significant problem with this argument is that the majority of the key findings were temporal in that they only represented a snapshot of how those individuals thought or acted either during or shortly after they had engaged in the design practices introduced by the researcher. A different type of inquiry is needed to understand how these temporal design attitudes may become embedded in people who are not expert designers - only then can an argument be made as to whether their 'design attitude' is equivalent or similar to that found in expert designers. Such an inquiry is discussed below, in the context of sensemaking, in relation to the emergent design practice of turning the map into a handbook and the design attitudes displayed by Lynda from Company A.

10.3.3 Embedding design attitude through sensemaking

The key findings regarding turning the map into a handbook (section 7.4.2) highlighted how manager Lynda engaged in design practices that are commonly referred to in the context of design processes as synthesis. These design practices focused upon taking the data gathered from the map making workshop and the map consultation and turning them into text and images for the new staff handbook. Lynda described this phase of design activity as 'absorbing' the artefacts and trying to 'make some sense of [the map]'.

As there is a lack of research in the area of synthesis and abductive thinking in design the researcher proposes that these design practices be understood as forms of 'sensemaking' using the cognitive psychology theory of sensemaking (Kolko, 2010a, 2010b). The researcher will propose that sensemaking, as a

collection of design practices, encourages the development of design attitude as part of a transition from participating in design practices to being responsible for design practices.

The leading proponents of sensemaking (Weick, 1995; Dervin et al, 2003; Klein et al, 2006) argue for a general understanding of sensemaking as a process by which people seek to make meaning out of complex or ambiguous data and that this process involves doing things. In terms of a more detailed understanding of sensemaking the researcher, in common with Kettunen (2014), places most weight upon the proposals made by Weick, who specifically considers sensemaking by individuals in an organisational setting.

Weick argues that sensemaking is a creative process that involves things sensible. Importantly Weick argues that sensemaking is not the same as simply interpreting data: interpreting involves mediating between a body of information and an audience, however 'sensemaking is about authoring as well as interpretation, creation as well as discovery' (p.8). Weick argues (pp.7-61) that sensemaking is made up of seven key properties, being: 1) grounded in identity construction, 2) retrospective, 3) enactive of sensible environments, 4) social, 5) ongoing, 6) focused on and by extracted cues and 7) driven by plausibility rather than accuracy. An in-depth discussion of each of these properties is outside the scope of this research, however they are discussed below in the context of Kettunen's (2014) proposal for how they are evident in design practices.

The argument for design as sensemaking is made by Kolko (2010a, 2010b) and Kettunen (2014). Kolko and Kettunen are both design practitioners as well as being researchers and their findings are drawn from their own personal experience of design practice. In common with much design research their findings relate to expert designers.

Kolko (2010b) argues that engaging in sensemaking is reliant upon the application of a designer's unique style and design sensibility and that:

> During synthesis, a designer simultaneously attempts to embrace their

> own unique experiences, emotions, and history to embrace someone else's unique experiences, emotions, and history. These are the elements that are crucial to making sense of the complicated design problem.
> (Kolko, 2010b, p.8)

Arguably Kolko is describing the application of design attitude in action.

Kolko (2010a) describes a designer faced with a vast amount of data that is then made tangible using simple tools such as 'a big wall, a marker, and lots of sticky notes' (p.18). Once this physical organisation has taken place, providing the designer with 'a strong mental model of the design space', 'the designer begins the more intellectual task of identifying explicit and implicit relationships, physically drawing out these content-affinities through the process of organisation' (pp.7-8).

Whilst Kolko's description is similar to the process adopted by Lynda, Kettunen takes a broader view that extends sensemaking beyond synthesis to other design practices. Kettunen does this by looking for evidence of Weick's properties of sensemaking within design practices. The result is to propose sensemaking as a series of interdependent design practices (fig. 9.1).

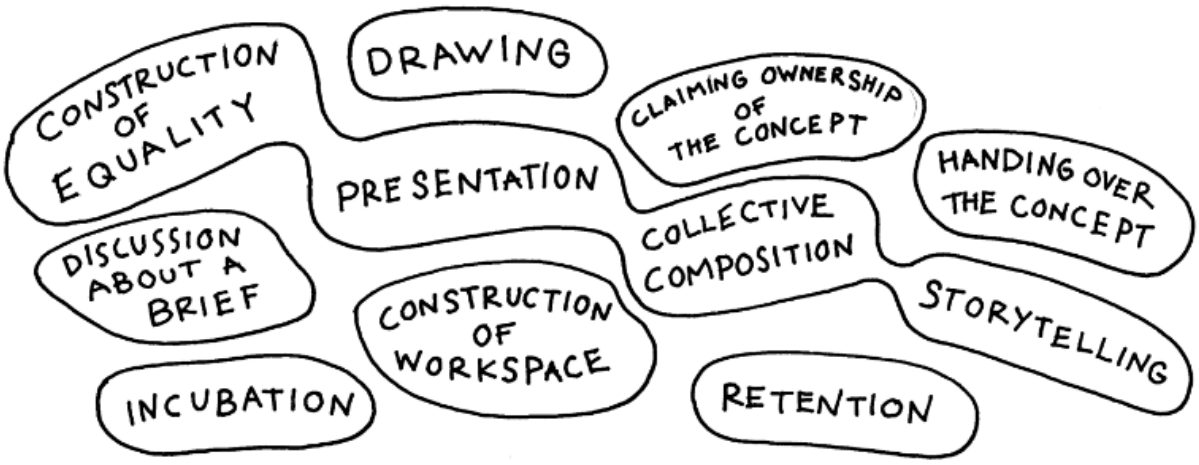


Figure 9.1 Design sensemaking practices in the early phases of product development (Kettunen, 2014, p.5)

The design practices of incubation, construction of workspace and claiming ownership of the concept were all demonstrated by Lynda during the two months she worked from the room the map was located in. Collectively these design practices demonstrate a transition by Lynda from participating in design practices to being responsible for design practices. The basis for her making this transition was prior experience of design practices. The key findings indicate that the following experiences were influential:

Participation in multiple interventions

Participation in multiple design interventions led to people valuing design practices (Yee and White, 2016) and the development of design ability (Cross, 2006). In Lynda's case she had taken part in the map making workshop and the map consultation.

Ownership of design practices

Lynda developed her own design practices, drawing from her experience of the design interventions and her existing disciplinary expertise. Lynda explained that facilitating the map consultation workshops had been possible because she had gained 'the skills and… some of the tools' to do so. This is consistent with Yee and White's (2016) observation of participants displaying 'the ability to adapt tools and methods for their own purposes, rather than use them in a prescribed manner, when the expert designers had left the project' (p.14).

The researcher proposes that sensemaking, as a collection of design practices, encourages the development of design attitude as part of a transition from participating in design practices to being responsible for design practices and that this extends beyond the domain of expert designers. It should however be noted that the opportunity to engage in sensemaking only arose because Lynda was faced with a complicated problem and had access to resources including time and a dedicated design space. Accordingly creating the appropriate opportunities and conditions to engage in sensemaking may be critical to using sensemaking to embed design attitude. Such conditions are discussed in the context of the infrastructure needs of CoDP in Chapter 11.

10.3.4 The transformation of people who are not expert designers

Whilst there is a wealth of literature extolling the organisational benefits of people engaging in and using design practices - not least as a form of 'design thinking' (Dunne and Martin, 2006; Bauer and Eagan, 2008; Brown, 2009; Martin, 2009) - there is a scarcity of research regarding the developmental impact upon individuals. As has been argued above, engaging in design practices may lead to people acquiring both design ability and design attitude. A logical assumption could be that ultimately people are transformed into what this study has referred to as 'expert designers'. However, this assumption ignores both the benefits of a formal design education (Potter, 2008; Cross, 2006) and, arguably more importantly, the expert designer's sense of aesthetics (Kimbell, 2010; Terrey, 2010; Tonkinwise, 2011). Bailey (2013) goes so far as to argue that 'this sense of aesthetics and the ability to sense and manipulate socially constructed meaning is the difference between the designer and the non-designer' (p.4).

The researcher has proposed that sensemaking, as a collection of design practices, encourages the development of design attitude as part of a transition from participating in design practices to being responsible for design practices. In addition, Lynda at Company A developed her sense of aesthetics by negotiating the brief and critiquing the work done by the external graphic designers. Arguably there was a transformational process or metamorphosis. The researcher argues that this transformation may be more than simply the transition from participating in design practices to taking responsibility for design practices discussed earlier.

Siegel and Stolterman (2008) describe the transition made by undergraduates from non-design disciplines engaging in post-graduate design education. In doing so they describe design as a perspective to be combined with other disciplines and a process of transition during which the non-designer must overcome a series of barriers. Whilst their findings are particular to an educational context the concept of a transition during which barriers must be overcome in order to achieve transformation is compelling. In this respect the

researcher adopts Bailey's (2013, p.9) argument that expert designers play a role in disseminating design practices and that people working with them 'develop the skills and strategies of a designer much in the same way as design students cultivate a sense of style within the socialisation of a studio culture'. Accordingly, the researcher proposes that in the case of members of organisations the barriers are likely to include the issues identified elsewhere in this research, in Chapter 11, as the infrastructure needs of CoDP.

The other issue raised by Bailey is what happens when the external expert designer departs. Bailey seeks to answer this by arguing that people benefit from the development of design culture and that their design practices need to be connected to other design practices in the organisation. This highlights a potential flaw in the approach taken by the researcher in the Company A case study where connections to the existing design practices such as product development may have helped with the future development of people such as Lynda both by providing ongoing access to expert designers and by removing some of the barriers through the provision of some of the infrastructure needs of CoDP.

This research demonstrates that introducing new design practices encourages people to undertake a transition similar to that of becoming an expert designer. There is no evidence to suggest that they will become expert designers. Lynda's case demonstrated how her own disciplinary expertise, in the field of human resources and policy, was enriched, and arguably transformed, through the use and development of new design practices. This disciplinary mixture can be understood by considering Stein's (2007) framework below (tab.10.1).

Table 10.1. Stein's (2007) disciplinary framework

Form of inquiry	Competences of the individual
Disciplinary	Individuals demonstrate understanding of one set of conceptions and one methodological approach. They are able to generate unique questions and contribute new research and findings in this area.
Multidisciplinary	Individuals demonstrate disciplinary competence, and understand that their endeavours must be related to the endeavours of others in surrounding disciplines. They therefore come to know and use some concepts used in these disciplines.
Crossdisciplinary	Individuals demonstrate disciplinary competence and know how concepts and methodologies from other disciplines relate to their own, having mastered some concepts therein. They are able to constructively communicate with those from other disciplines in a problem-focused manner.
Interdisciplinary	Individuals demonstrate at least two disciplinary competences. One is primary, yet they are able to employ the concepts and methodologies of other another discipline well enough to contribute to the questions and findings therein. New understandings of the primary discipline result.
Transdisciplinary	Individuals demonstrate at least two disciplinary competences, neither of which is primary. They work and contribute to both and generate unique findings, conceptions and artefacts as a result of an emergent trans-disciplinary perspective. They are able to communicate with those from a variety of disciplines in a synoptic manner.

Arguably Lynda was already operating in a multidisciplinary role and engaging in new design practices enabled her to make a transition to a cross-disciplinary role. The potential for further development can therefore be understood as the potential to make further transitions, which in Lynda's case would mean moving to an interdisciplinary or even transdisciplinary role as her competence in design practices grows. Dykes et al (2009) considered these different disciplinary domains from the starting point of design being the primary discipline. This research suggests an inverse position where design is the secondary discipline and is developed in people who are not expert designers.

10.4 The external designer

10.4.1 Introduction

Junginger and Sangiorgi (2009) argue that to drive organisational change, a designer needs to question the fundamental assumptions, norms and behaviours of an organisation. The researcher argues that this was achieved in the case studies by adopting an approach of creating provocative artefacts and then engaging in critical dialogue.

The researcher's design approaches - collective design activism and disruptive design - are set out in Chapter 4 and form the basis for the researcher's design attitudes. The case studies and the researcher's personal narrative demonstrate that these approaches were followed by the researcher creating provocative artefacts and encouraging members of the organisations to both respond to them and to create their own artefacts. These initial approaches did not prevail but instead gave way to critical dialogue between the researcher and key stakeholders from both organisations. The researcher then continued to transition between creating provocative artefacts and engaging in critical dialogue as illustrated in Figure 10.2.

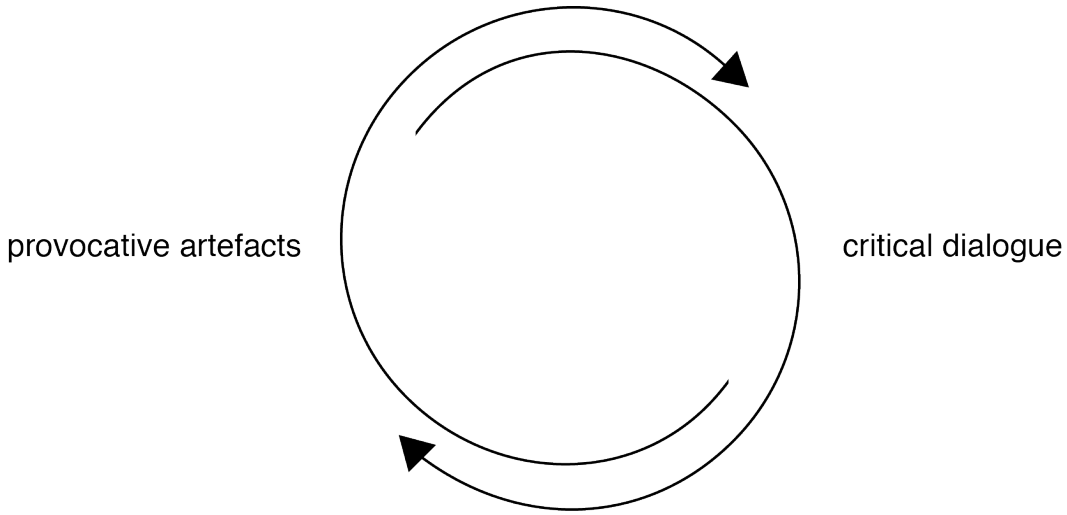


Figure 10.2 The researcher's twin approach

A similar twin approach of provoking and critiquing by external designers initiating design interventions in an organisational setting has already been identified by Warwick (2015). Warwick suggests an approach based upon establishing trust and then acting as both provocateur (Tan, 2012) and critical friend (Costa and Kallick, 1993). Whilst Warwick's observations are helpful in describing a similar landscape to the case studies in this research study, by identifying trust as a key condition, they do not place significance upon the creation of artefacts or seek to understand how artefacts may act as a common thread between the two approaches. In contrast the researcher proposes that the link between using provocative artefacts and entering into critical dialogue is the unfinished nature of the artefacts.

This proposal is discussed in terms of how the researcher's attitude manifested itself in provocative artefacts (s.10.4.2), the role played by critical dialogue (s.10.4.3) and the role of trust (s.10.4.4). The impact of this approach is then considered in the context of this research study (s.10.4.5), the effectiveness of insider design activism (s.10.4.6) and the wider context of exploratory design interventions (s.10.4.7).

10.4.2 Provocative artefacts

In the initial workshops the researcher and his colleagues encouraged the participants to make artefacts that strongly challenged the status quo, in conflict with organisational norms. These artefacts took the form of protest posters, future manifestos and abstract models (fig.10.3-5). These artefacts were provocative in a literal sense in that they contained text, images and forms that were intended to politicise, leading to further discussion and possibly action. However, they were also provocative in that they possessed a rough, unfinished quality.

Figure 10.3 Company A: protest poster created in initial workshop

Figure 10.4 Ryder: extract from manifesto document made after initial workshop

Figure 10.5 Company A: model created in the initial workshop

In both case studies the later interventions involved the researcher creating artefacts that were then introduced to the participants as the basis for the new design practices. In Company A's case this took the form of the empty map and a series of prompts – 'buildings', 'journeys' etc. - that were issued throughout the day of the map making workshop. In Ryder's case this took the form of a large paper box given to each of the participants containing written instructions, tools, materials and recording devices. Through the earlier initial workshops and through subsequent conversations the researcher had developed an understanding of what would be provocative to each organisation. In Company A's case the lack of design awareness outside of a few overt areas of design practice led to asking them to create the organisation as a three-dimensional model. In Ryder's case the provocation had to be specific and relevant, as they were familiar with design practices, and so led to the creation of a contentious statement about architectural practice. In both cases these artefacts led to the creation of further artefacts.

The key findings showed that in the Company A case study the provocative nature of these artefacts motivated people to think and act counter to existing organisation practices. However, in the Ryder case study, where the design practices introduced were familiar to the participants, the use of provocative artefacts served to motivate people to engage in the design practices.

These provocative artefacts were created both in the spirit of collaborative design activism, using provocation to engage people and seek to rearrange 'the prevailing conditions within the organisations' (Lenskjold et al, 2015, p.72) and using disruptive design principles, being ad hoc and experimental, without a recognised or consistent design process (Celaschi et al, 2013). It is also possible to understand these approaches in a broader design context by considering Tan's (2012) designer as 'provocateur' and Yee and White's 'friendly challenger'. However, to do that ignores the importance of the artefacts, which were provocative because they were manifestations of the researcher's design attitude. This link between design attitude and artefacts is canvassed by Michlewski (2008, p.387), who identifies a designer 'proposing novel, original

forms that challenge the status quo'.

These artefacts were provocative not just because they reflected the researcher's design attitudes and understanding of context within the organisations but also because they had an unfinished quality which provoked responses aimed at making them complete, often in the form of adding to the artefacts or creating further artefacts. The artefacts were capable of standing alone from the researcher and in this respect the researcher shares Flood and Grindon's (2014) view that provocative artefacts - which they refer to as 'disobedient objects' - can be considered in isolation, detached from the philosophies of their creator.

The tendency for design activism artefacts to be unfinished has been recognised by Julier (2009). Similarly, the tendency for artefacts created through exploratory design practices to be unfinished has been recognised by Tonkinwise (2005). Boland et al (2008, p.19) note how the renowned architect Frank Gehry used the technique of making his early models 'purposefully crude and unfinished' and that the role of those unfinished models was act as "tools for thinking' rather than the 'finished design'. Sociologist Celia Lury (Julier, 2009, p.97) goes further, suggesting that unfinished objects should be understood as 'an open-ended series or system' and that 'how an object might become, how it might evolve, how and with what (as well as who) it might connect, interact and so on' were relevant ways of considering those artefacts.

As to why this type of artefact might be unfinished/provocative, the researcher suggests that Ingold's (2007) discussion of the differences between materials and objects is helpful. The researcher proposes that the rough sketches and models made by participants in both case studies existed in a transitory state between materials and objects, and as such retained some of the experiential force of materials, acting as a catalyst for storytelling and sensemaking.

The researcher argues that the unfinished nature of the artefacts he had created and some of the artefacts created by the participants can be viewed as open ended and as tools for thinking. Further, those unfinished artefacts were persistent in that they continued to be provocative, in part because they

encouraged people to complete them by engaging in the new design practices, even when the researcher changed his approach by focusing on critical dialogue. This persistence prevented the researcher's design activism approach from becoming subsumed into the mainstream of existing organisational practices and avoided the sort of compliance Berglund (2013) warns of.

The researcher proposes that in an organisational setting these characteristics of provocative and unfinished artefacts present a type of boundary negotiating artefact similar to the 'structuring artefacts' used to establish the narrative of design activity described by Lee (2007).

10.4.3 Critical dialogue

The key findings demonstrate how the creation of provocative artefacts gave way to critical dialogue. The researcher adopts the meaning of 'dialogue' given by Buber (2003) and Gadamer et al (2004) who stress that the key elements are listening and understanding. It follows that not all of the conversations that took place during the case studies were dialogues. Further, critical dialogue was more prominent in the Ryder case study that in the Company A case study. Accordingly, 'critical dialogues' involved the researcher and key stakeholders from the organisations analysing the merits and faults of the new design practices through discussions based around listening and understanding.

A theoretical understanding of critical dialogue in the context of design practice can be gained by considering it as part of what Jenlink (2001) describes as a greater design conversation within the organisation: a form of 'meta-conversation' enabling participants in design practices to understand the design practices being used and to develop new design practices. Jenlink (2007, p.14) argues that design conversation is 'a detailed form of design inquiry encompassing several forms of conversation' which includes (1) inquiry discourse, (2) critical discourse, (3) sustaining discourse, (4) debriefing conversations, (5) conversations with contexts and (5) dialogue conversations which serve as a medium for emotional and cultural change. Critical dialogue invokes both critical discourse and dialogue conversations. Accordingly, it seeks to critique, to develop understanding and to drive organisational change.

This can be contrasted with the approach described by Warwick (2015) of acting as a ‘critical friend’, the process of which is defined by Costa and Kallick (1993) as being limited to asking questions about and then critiquing another person’s practices. The researcher argues that critical dialogue is a wider form of inquiry and that it is not limited to practices but may include consideration of physical artefacts.

In both case studies, following the initial workshops the researcher entered into critical dialogues with key stakeholders from each organisation. In Company A’s case critical dialogue was limited to managers Diana and Lynda - conversations did take place with senior managers at Company A but they were not acting as stakeholders in the new design practices as they knew little about them. It was different in Ryder’s case as senior manager Bill and manager Sid were stakeholders throughout and were joined at later points by senior managers Andy and Dennis, all of whom engaged in critical dialogue with the researcher. These structural differences between the case studies are discussed further in Chapter 11.

The key findings demonstrated that critical dialogue contributed towards:

- Developing shared understanding of the new design practices that had been introduced by the researcher and those that had emerged as a result.

- Developing new design practices.

- Convergence of thinking between the researcher and pre-existing CoDP that were in their infancy.

- Developing insights into how to use design practices to influence senior management.

In all of these examples the provocative and unfinished artefacts continued to play a prominent role. The artefacts represented a snapshot of the new design

practices, of which there was little other tangible evidence. Accordingly, the dialogues included critiquing the artefacts themselves, as opposed to just focusing upon the new design practices or existing practices within the organisation. The researcher argues that this helped the outcomes of the critical dialogues, listed above, to be positive. Further the researcher argues that an important aspect of the critical dialogues was asking 'what can we do with the artefacts?' and that the responses represented attempts to finish the artefacts, which required connecting the new design practices, and the CoDPs, to other parts of the organisations. Accordingly, the researcher proposes that this is an important characteristic of provocative and unfinished artefacts: they encourage critical dialogue to be a positive experience, the dialogue contributing towards finishing the artefacts.

Further, the researcher proposes that in an organisational setting critical dialogue may represent a form of boundary encounter (Wenger, 1998, p.112) with the researcher acting as a broker on behalf of the new CoDP, seeking to make connections with other communities. The success of critical dialogues as boundary encounters relies upon many factors including the nature of the boundary objects or boundary negotiating artefacts. However, this success is also interdependent upon how the new design practices are aligned, the types of connections the CoDP is able to make, whether the key stakeholders are expert designers and the level of design awareness within the organisation. These factors are discussed in more detail in Chapter 11.

10.4.4 Trust as a foundation

The researcher's personal narrative (s.9.4) demonstrated how gaining trust was fundamental to making the transition from outside to insider in both case study organisations. Both Yee and White (2016) and Warwick (2015) argue that gaining trust is required in order to effect organisational change. The researcher suggests that whilst gaining trust is a basic requirement for any intervention by an external expert designer, it is particularly relevant to both an approach based upon provocative artefacts and critical dialogue.

The nature of provocative artefacts means that without trust participants may

respond simply by rejecting the design practice being introduced. In the context of design activism this may represent a significant departure from traditional forms of design activism and may be a distinct requirement of a collaborative design activism approach. Trust is also essential both in initiating critical dialogue and in it being effective in influencing organisational change.

10.4.5 The impact of design interventions based upon provocative artefacts and critical dialogue

As discussed above, both elements of the researcher's design practice – creating provocative artefacts and initiating critical dialogue – were potentially valuable in their own right and when used in tandem. However, their value may be better understood in the following contexts:

- enabling knowledge to be developed and then shared by making connections between CoDP and other parts of organisations (other communities);

- enabling this knowledge to be acted upon by mediating between new design practices and existing practices.

The creation and development of provocative artefacts helped to create boundary negotiating artefacts that could be used to make connections between the new CoDP and other communities in the organisations. Further, the practice of critical dialogue served as a form of boundary encounter, enabling the researcher to act as a broker for the CoDP. These efforts to make connections were supported by actions of the individual members of CoDP, in particular by design champions, whose role is discussed further below (s.11.4)

The provocative artefacts possessed an unfinished quality that enabled them to be persistent, continuing to be provocative long after the researcher had changed his approach by focusing on critical dialogue. This persistence enabled the critical dialogues to unlock the value of the artefacts by developing them further (seeking to finish them), acting upon them and making connections with other communities. Importantly this was done without diminishing the

provocative nature of the artefacts. Whether this avoided the perceived risk of complicity in the context of design activism is discussed further below (s.10.4.6)

These connections allowed knowledge to be shared by members of the CoDP. The key findings demonstrated that using new design practices developed at least two areas of knowledge in people. Firstly, people became familiar with the design practices and understood how to use them to the extent that they were able to share them with others. Secondly, people, in particular Lynda at Company A and Sid at Ryder, developed an understanding of ways in which they could influence organisational change.

The concept of new design practices leading to increased familiarity with design practices, and therefore the further development of organisational design culture, and to insights as to how organisational change may be achieved is consistent with one of the theoretical starting lines for this research study, comprising the work of (Junginger, 2008b; Deserti and Rizzo, 2014b). However, that body of literature stops short of understanding how those outcomes go on to cause organisational change.

Deserti and Rizzo (2014b) argue that design culture produces ‘conflict’ and ‘contradiction’ that may lead to organisational change. This appears to be a sound proposal as it accords with Fullan’s (1982) findings regarding how practitioner-researcher’s may initiate change in organisations. Fullan (1982, p.91), like Buchanan and Badham (2009), argues that conflict and disagreement are both inevitable and fundamental to change. However, Fullan also argues that in order for change to be implemented a process of clarification is required as well as conditions that allow people to react and interact with the proposed change. This is consistent with Julier’s (2007, p.147) arguments for the need to mediate and harmonize the conflicts created by artefacts.

In this research study conflict and contradiction were created through the creation of provocative artefacts and through engaging in new design practices: both the artefacts and the design practices were counter to existing organisational values and practices. As has already been discussed, the

provocative nature of the artefacts was sustained by the unfinished nature of the artefacts. In addition, the researcher argues that engagement in the new design practices was sustained through them being shared.

The researcher argues that Fullan's requirements for change to be implemented – clarification and reaction/interaction – were also present in both case studies through the use of critical dialogue. In particular, developing shared understanding of the new design practices and developing insights into how to use design practices to influence senior management both clarified the nature of the new practices and created an opportunity for senior management to react and interact.

Whilst the use of critical dialogue appears to fulfil Fullan's criteria clearly other approaches by external expert designers may also be successful provided they create the same opportunities. It is also worth noting that there is not a presumption that the result of critical dialogue will always be an acceptance of the new practice or artefact – Company A's request that details of one of the protest posters (s.7.3.3) be omitted from this thesis is a good example of this. Arguably what critical dialogue achieves is understanding and for a decision to be made. In doing this it also suggests a new role of 'mediator' for designers concerned with effecting organisational change.

10.4.6 The effectiveness of insider design activism

As has been discussed in Chapter 4, the researcher was enacting design activism both through members of the two case study organisations and by acting as an activist himself.

Company's A's request that details of a protest poster made by one of their members be omitted from this thesis (s.7.3.3) demonstrated that senior management were able to exert some control over the artefacts created. Ostensibly this goes to the heart of Berglund's (2013, p.209) concern that design activism in collaboration with for-profit organisations may lead to 'compliance' and in so doing negates design activism's primary purpose of challenging the status quo.

To draw such a conclusion requires an assumption that a similar act of design activism, made from outside of the organisation, would have successfully led to change. This assumption is wrong as organisational change is based upon multiple factors regardless of whether the person seeking change is outside or inside the organisation. The differences between design activism initiated outside or inside organisations have not been subjected to in-depth academic study. However, Briscoe and Gupta (2016) have considered these differences in a social activism context and the researcher argues that their findings are relevant to collaborative design activism.

Their findings, which are summarised in Table 10.1, are that whilst outsider activists have a low dependency on resources, and are more likely to initiate activist acts, insider activists have far greater organisational knowledge. In the context of this research study, the researcher proposes that it is the issue of organisational knowledge which makes insider design activism effective. Arguably outsiders to both Company A and Ryder would have little or no knowledge of the potential issues, existing practices or organisational aims. As such without the design interventions none of these things would have been challenged at all by outsiders. In contrast the participants from both Company A and Ryder demonstrated the high level of organisational knowledge argued by Briscoe and Gupta including knowledge of values and culture, informal groups and challenging through existing practices.

Arguably the effectiveness of insider design activism may extend beyond that proposed by Briscoe and Gupta in relation to insider social activism. In this research study any lack of motivation amongst insiders was negated by participating in the design interventions. Further, not only was existing organisational knowledge used to promote the new design practices, new organisational knowledge in the form of new design practices was created and applied. Accordingly, the fact that an artefact created by an insider was censored by an organisation does not make the act any less effective.

Table 10.2 An Insider-Outsider Framework: Different Activist Types and Their Influences on Organisational Targets (Briscoe and Gupta, 2016, p. 8)

Insider activists	**Intermediate cases**	**Outsider activists**
Full members of target organization	*Partial or temporary members of target organization*	*Non-members of target organization*
Example: employees	Examples: company shareholders, university students	Example: social movement organization (SMO) participants
A. Resource dependence on the target organization		
Insider activists	**Intermediate cases**	**Outsider activists**
High dependence	Varied dependence	Low dependence
Implications		*Implications*
• Reduced incentive to voice grievances		• Increased incentive to voice grievances
• Difficulty recruiting into participation		• Easier recruiting into participation
• High barrier to deployment of disruptive tactics		• Low barrier to deployment of disruptive tactics
B. Knowledge about the target organization		
Insider activists	**Intermediate cases**	**Outsider activists**
High knowledge level	Varied knowledge level	Low knowledge level
Implications		Implications
• Effective framing of claims and goals toward target, using knowledge of values and culture		• More difficulty framing claims and goals toward target
• Ability to focus lobbying, using knowledge of informal structure (factions, friendships)		• Limited ability to focus lobbying
• Insight on how to threaten, using knowledge of critical resources and routines		• Lower certainty on how best to threaten

As has already been discussed (s.9.4) the researcher transitioned between being an insider and an outsider, occupying what Dwyer and Buckle (2009, pp.60-62) describe as 'the space between'. By adopting Briscoe and Gupta's (2016) model arguably the researcher was acting as an 'intermediate' activist. Briscoe and Gupta develop their argument for intermediate activists by discussing literature concerning student activists and shareholder activists. The researcher argues that this discussion could be extended to include researcher activists. According Briscoe and Gupta's (2016, p. 24) thoughts about the potential effectiveness of intermediate activists are relevant:

> [T]he varied relationships between [intermediate activists] and their target organizations might give this group more flexibility in selecting effective methods of activism—or conversely it might produce uncertainty about the best course of action.

Biscoe and Gupta go on to suggest that this potential uncertainty may be reflected in the need for intermediate activists, as well as outsider activists, to use both 'persuasion and disruption mechanisms' (p.24) in order to effect change. However, they also note (p.32) that there is a lack of empirical research regarding the use of persuasion and disruption tactics within organisations. Arguably the researcher's twin approach, of creating provocative artefacts and initiating critical discourse, were forms of 'disruption' and 'persuasion' and helped to effect change.

10.4.7 The impact of exploratory design interventions

The proposals made above, regarding the impact of design interventions based upon provocative artefacts/critical dialogue, are highly subjective as they assume a design practice that is founded in collaborative design activism and disruptive design. Accordingly, the researcher proposes that the impact of exploratory design interventions can also be understood in a wider context by considering the roles performed by the researcher. In this respect Bowen et al (2016) are helpful in describing new ways of articulating such impact.

The researcher's personal narrative (s.9.3) discussed to what extent the researcher had performed the seven roles for designers proposed by Yee et al (2009) and Howard and Melles (2011). Whilst the researcher identified strongly

with the roles of facilitator, communicator, researcher and director/co-creator he rarely occupied the other roles of teacher/capability builder, design lead/strategist or entrepreneur. Clearly roles that involve teaching, leadership and delivery are significant and yet they were neglected in preference for an exploratory approach in which participants would experience new design practices and then make up their own minds how, if at all, to use them.

This exploratory approach was significantly different from traditional models of collaboration between universities and industry. Such models range from ‘design thinking’ workshops for managers, intended to provide them with tools and methods, to more long term collaborations such as knowledge transfer projects where the intention is often to develop new intellectual property that the organisation may then exploit. In both of those examples teaching, leadership and delivery are fundamental roles.

Bowen et al (2016) describe a series of exploratory design interventions carried out with several for-profit organisations over a four year period. The practice they propose is a ‘creative exchange’ whereby ‘creative practice as a pragmatic inquiry into what might be’ is focused upon creating and exploring boundary objects (p.194). They also suggest that this ‘creative practice’ is highly subjective ‘responding to participant’s expertise’ and resulting in ‘unexpected and relevant possibilities’ (p.194).

In terms of impact Bowen et al argue that in addition to the inherent value of the artefacts this form of design practice also creates ‘a set of relationships between stakeholders in which creative exchange can take place’ (p.195). The researcher proposes that the nature and potential value of these ‘relationships’ can be better understood as creating CoDP. Accordingly, even if participating in exploratory design interventions stopped short of implementing organisational change at a macro level (in terms of implementing changes to organisational practices and aims) it would arguably still lead to change at a meta level, by further developing the organisational design culture and changing how the role of design is understood.

In making these proposals Bowen et al recognise that this is not a traditional

form of knowledge exchange between academic and industry collaborators. Instead they argue that this is an extension of existing transactional models of academic-industry collaboration. Given the extent of the differences between these forms of design practice the researcher suggests that this is in fact a wholly different form of collaboration and as such is a departure rather than an extension.

10.5 Summary

This chapter has brought together the knowledge developed by this research study that relates to the impact of design interventions in terms of artefacts and people. Specifically, it has considered the role of artefacts, the impact of new design practices beyond expert designers and the approach adopted by external expert designers. This knowledge can be summarised as follows:

Artefacts

Artefacts play a dual role, creating impact at both micro and macro levels of organisations:

- Artefacts act as a catalyst in forming new CoDP by encouraging individual engagement and collaboration with others. The second point is particularly important given Wenger's (2008) requirement for practices to be shared.

- Artefacts enable connections to be made between CoDP and other communities of practice, including other CoDP, within an organisation. These connections are possible because the artefacts that are created by new design practices can act either as boundary objects (Star and Griesemer, 1989; Bowker and Star, 1999) or as boundary negotiating artefacts (Lee, 2007).

Design attitude

The impact of engaging in new design practices includes the potential for development of design attitude in all members of organisations, rather than being restricted to expert designers (Michlewski, 2008). The important points to note are:

- Whilst this development may be understood as part of a transition from participating in design practices to being responsible for them, it may also be understood as part of a more radical transformation in individuals own disciplinary field by developing competence in the use of and development

of new design practices.

- This development requires that several conditions exist, chief among them engagement in multiple design interventions. To be sustained it may also require further engagement in design practices and support from expert designers.

- Sensemaking as a form of design practice (Kolko, 2010a, 2010b; Kettunen, 2014) may be a gateway for people to begin this transformation.

External expert designers

The role of the external expert designer introducing new design practices to organisations has been discussed by considering the design approaches adopted by the researcher and the resulting impact demonstrated by the key findings. This is an extremely subjective form of inquiry and the ability to replicate this role identically are undermined by the idiosyncrasies of the researcher's individual approach.

By locating the discussion within established modes of design approaches – design activism, design disruption and acting as a critical friend – the researcher argues that the findings are of use to other design practitioners and researchers. Accordingly, the researcher has proposed a twin role of creating provocative artefacts and entering into critical dialogue. The key points to note are:

- Artefacts created using a design activism approach tend to have an unfinished quality which enables them to be persistently provocative and avoid becoming compliant when used in an organisational setting.

- Provocative artefacts provide a platform from which critical dialogue can be entered into. They do this by acting as the subject matter for the critical dialogue.

- This approach helps to sustain new design practices for long enough that connections can be made between CoDP and other communities within organisations.

- Critical dialogue helps to resolve the conflict and contradiction created by provocative artefacts and the introduction of new design practices. In doing so it may enable organisations to implement change at a macro level to their processes and aims.

- Critical dialogue suggests a new role of ‘mediator’ for designers concerned with effecting organisational change.

- Enacting design activism through members of organisations – insiders –is effective as their high level of organisational knowledge enables them to exert influence.

- The effectiveness of researcher’s as intermediate activist is uncertain and may depend upon what tactics, including persuasion and disruption, are used.

- Exploratory design interventions represent a departure from traditional academic-industry collaborations and may lead to organisational change at a meta level by developing design culture.

The following chapter builds upon this knowledge by considering the wider organisational conditions that are required for design interventions to be impactful and for CoDP to flourish.

Chapter 11

The needs of communities of design practice

11.1 Introduction

The key findings demonstrated how the impact of new design practices, both introduced and emergent, was influenced by a variety of organisational conditions ranging from the prior experience of individual participants all the way through to structural issues of where the new design practices were situated within the organisations and how they connected to existing design practices and other parts of the organisations.

Wenger and Snyder (2000) argue that communities of practice are often informal and illegitimate groups, operating outside of traditional team or department structures found in organisations. They argue that the lack of legitimacy of an informal group of people creates a difficulty that requires additional infrastructure as follows:

- access to resources both in terms of time and money;
- recognition for their contributions;
- alignment to related initiatives within the organisation; and
- official sponsors who can help provide resources and coordination.

The researcher argues that these infrastructure needs apply to all CoDP that are based upon new design practices, even those that are legitimate or formal (s.11.2). However, it may be that these needs are more extreme where the members of the CoDP are not expert designers.

Further the researcher argues that CoDP have infrastructure needs over and above those of other communities within organisations and which may be

particular to design practices. Specifically, CoDP based upon exploratory design practices may benefit from situated rather than strategic alignment (s.11.3) whilst design vocabulary (s.11.4), design champions (s.11.5) and design space (s.11.6) are all required for CoDP to flourish.

11.2 Infrastructure needs

In both case studies Wenger and Snyder's infrastructure needs were apparent. This is unsurprising given that they fall within Yee and White's (2016) conditions required for design practices to have impact: building capacity, buy in from senior management and alignment to organisational values.

The CoDP created by the introduced design practices in both Company A and Ryder had all the proposed infrastructure requirements because they had been explicitly commissioned by the organisations and were adjunctive to existing processes such as the leadership development programme at Company A. However, this was not the case in relation to all the emergent design practices for which each of the infrastructure needs are considered below. The important issue for emergent design practices is not just whether the infrastructure needs were met but how.

Access to resources both in terms of time and money

In nearly all of the examples discussed the people engaged in the design practices were able to gain access to additional resources. This was done by using two distinct approaches, firstly by combining the design practices with an existing process and secondly by accessing new resources via senior management. Company A's Halloween workshop and team strategy workshop are both examples of the first approach as the design practices were initiated in the context of established organisational processes that already had time and a budget allocated to them. In contrast Company A's turning the map into a handbook and Ryders' model making and why we draw design practices are all examples of senior management granting access to new resources.

Recognition for their contributions and sponsors

These infrastructure needs are arguably interdependent. In Company A's case only Lynda received recognition for her work, the reason for this being that her sponsors - senior manager Jean and manager Diana - maintained their connections from the earlier map making and map consultation design

practices. The Halloween workshop and team strategy workshop both took place without recognition or sponsors, in part because they were entirely emergent. This can be contrasted with Ryder where all the emergent design practices were known to senior management and had the benefit of recognition and sponsors.

There are arguably structural reasons for the difficulties in Company A's case, how the initial interventions were understood by the organisation, and these are discussed further below in the context of alignment (s.11.3). It is also worth noting that, as unfamiliar design practices, the Halloween workshop and the team strategy workshop were arguably forms of silent design (Gorb and Dumas, 1987). As such the practices were not understood as being design practices and were unable to obtain the validation enjoyed by existing design practices such as product development.

Alignment to related initiatives

Alignment is discussed in detail below (s.11.3).

11.3 Alignment

11.3.1 Introduction

A traditional interpretation of alignment of practices in organisations has been to advocate a strategic alignment to organisational aims or vision (Kotter, 1996). However, as discussed in Chapter 3, Junginger and Sangiorgi (2009) and Deserti and Rizzo (2014a) propose an alternative form of alignment for design practices which can be understood as a situated approach. Situated alignment means that CoDP are either directly or indirectly engaged with organisational change. Direct engagement would mean that CoDP are concerned with changing the practices or policies of the organisation, even in a minor way whilst indirect engagement would mean that whilst CoDP may be concerned with a peripheral issue, such as the design of a new product or service, that the processes used would also produce insights that are directed towards changing the practices or policies of the organisation.

The key findings demonstrated that in Company A's case the strategic alignment of new design practices enabled the development of design practices, both at an individual level through encouraging design ability and design attitude, and at a community level through the formation of CoDP that developed new design practices. However, Ryder's case also demonstrated that the situated alignment of design practices enabled the type of emergent change envisaged by Higgs and Rowland (2015), from within the organisation and acted upon by senior management. Accordingly, the researcher argues that whilst both approaches are valuable it is important to understand what enables organisations to take a situated approach. The researcher will discuss this in the context of how unfamiliarity with design practices may influence alignment (s.11.3.2) and the types of connections made between CoDP and other communities (s.11.3.3).

11.3.2 Unfamiliar design practices

In both case studies decisions were made throughout the research period about the purpose of the various design practices. In both case studies the people making the decisions were managers or senior managers who were familiar with the aims of their organisation. The key findings show that people, in particular Lynda at Company A and Sid at Ryder, made these decisions by weighing up potential opportunities against the risk of failure. It is proposed that these factors - opportunity and risk - influenced whether they took a strategic or situated approach to the alignment of new design practices.

In Lynda's case her perception of risk led to her repeatedly seeking to limit the scope of the design practices to the production of a new staff handbook. It was only towards the end of the project that she began to envisage other potential outcomes for the design practices that had been used. In contrast, in Sid's case he put his efforts into keeping the purpose of the design practices as vague as possible for as long as possible. This allowed multiple conversations with the researcher to take place and even the box task itself to take place without a fixed purpose.

The key findings identified that familiarity of using design practices was a clear differentiating factor between the cases: Company A were unfamiliar; Ryder were familiar. This was not surprising given the differences in design awareness between the two organisations. It does however help to explain the basis on which each organisation could make decisions regarding risk and opportunity, and by extension why Company A acted conservatively in prioritising alignment to an existing organisational aim and Ryder allowed the design practices to remain ambiguously situated in relation to changing their creative practices.

These findings are consistent with the leading authorities on perceived risk, Jacoby and Kaplan (1972), who argue that all types of perceived risk - financial, performance, physical, psychological and overall perceived risk - are based upon trying something unfamiliar. Whilst they use the example of an unfamiliar brand of product, the case studies in this research involved unfamiliar design practices. It may also have been relevant that Ryder were more familiar with

collaborating with external experts than Company A were.

This risk was negated to some extent by the initial workshops which were intended to introduce design practices, and in doing so make them more familiar, and to build trust.

As design practices became more familiar to Company A people's perception of risk changed. The best example of this was Lynda who participated in multiple interventions. Lynda observed that during the map making workshop she had been 'a bit too focused on the end result' and feeling anxious. However, during turning the map into a handbook Lynda described herself as 'a little bit more relaxed' and prepared to 'just see what happens'. It is important to note that the design practices Lynda was engaging in were still strategically aligned to the organisational aim of producing a staff handbook. Her change in perception of risk may have been part of a transition towards considering a more situated approach to alignment, however the key findings do not go far enough to support this suggestion. In the meantime, Lynda explained that she had become more likely to use the design practices again on other specific projects which were strategically aligned.

11.3.3 Types of connections made between CoDP and other communities

The researcher proposes that a situated approach to alignment may only be successful in driving emergent change if the new design practices are situated in such a part of the organisation that they can influence senior management. In this respect the researcher shares Junginger's (2009) view that design interventions at the periphery of organisations are unlikely to lead to fundamental changes to the organisation. Whilst it is possible to use Junginger's (2009) and Rousseau's (1995) orienting framework to plot the location of the design interventions from the case studies it is not helpful in understanding the dynamics of different situations. Instead the researcher proposes that these different situations can be understood by considering them in the context of what types of connections the CoDP could make with other communities.

Wenger (1998) proposes that practice itself may connect different communities within organisations and proposes three types of connection caused by practice: boundary practice, overlaps and peripheries (see fig.11.1).

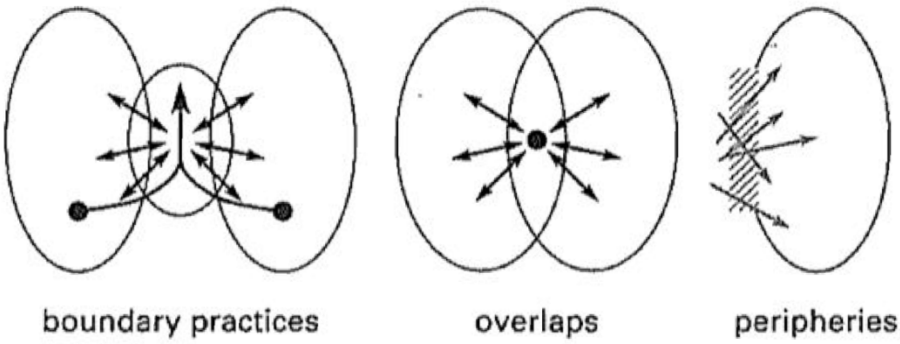


Figure 11.1 Types of connection provided by practice (Wenger, 1998, p.115)

These types of connections can be summarised as:

Boundary practices

Different communities of practice working together in a formal way, such as a joint task force, that enables that enables them to address conflict, reconcile perspectives and find resolutions though collective brokering.

Overlap

A direct and sustained overlap between different communities of practice, such as multidisciplinary teams, that enables people to learn from others.

Peripheries

Peripheral experiences for people who are not members of a particular community of practice, such as observation or even engagement.

The key findings indicate that the design practices considered in the two case

studies all began, through initial workshops, by making connections between members of the two organisations and the periphery of the CoDP to which the researcher and his colleagues from Northumbria University belonged.
In Company A's case the introduced design practices that followed represented a series of overlaps between the researcher's CoDP and existing communities such as the people team and the retail team. Wenger (2008, p.116) argues that such overlaps require someone with 'special expertise' to sustain them and arguably this was a role played by the researcher. In some cases, such as the map consultation there were also connections being made at the periphery.

The emergent design practice at Company A of turning the map into a handbook deserves consideration as multiple overlaps took place between the people team, the emergent CoDP that Lynda was part of and the external graphic designers. Arguably Lynda displayed special expertise, in particular through sensemaking (s.9.3.3), that made these connections possible and sustainable. Lynda's newly developed design ability and design attitude enabled her to share her design practices with the graphic designers and also enabled her to manipulate their brief and critique the work of the graphic designers.

In contrast to these connections at the periphery or overlapping the CoDP, in Ryder's case the introduced design practices were arguably a form of boundary practice - a joint enterprise between Ryder and the researcher. The researcher's participation in the design review meeting and the design competition, the box task, the exhibition and the presentation to the senior management group can all be considered as a form of joint boundary practice. The community in the middle was a CoDP whose members consisted of the researcher and Sid, with Ryder's senior management group, their architects and the Design Disruption Group the communities surrounding it. By situating the design practices in this way the CoDP was sustainable despite not having the clear purpose that strategic alignment to an organisational aim would have given it. The researcher argues that the key findings support the following proposals for characteristics of situated alignment:

- The involvement of senior management from the beginning meant that resources were made available throughout and that there was an expectation that decisions would be made upon any findings.

- It was possible for people to be stakeholders in the project without directly engaging in the design practices. This enabled collective brokering to take place on behalf of the CoDP over a sustained period.

- The researcher was party to all the connections being made. This meant that there was more scope for engaging people in critical dialogue.

- By viewing the interventions as a joint venture the design practices could stand alone and were not required to be adjunctive to existing projects within the organisation. This avoided the risk of the design practices being discarded as individual projects came to an end.

- The approach relies on all parties agreeing to a joint inquiry rather than the external designer providing design tools in the form of methods or processes. This assumes that the organisation is both familiar with exploratory design practices and does not require design tools.

These characteristics are highly subjective and are only intended to be a proposal for discussion. They do however suggest that for the Company A case study to have taken a situated approach to alignment the researcher would have needed to directly engaged senior management and expert designers from other parts of the organisation.

11.4 Design vocabulary

11.4.1 Introduction

The researcher proposes a working definition of design vocabulary in an organisational setting as a body of language that enables members to describe design practices in a way that is understood and which attributes value to design. As such a design vocabulary is an aspect of design practices and of wider design culture. The use of a common language to communicate between different groups within organisations is widely accepted (Krippendorff, 1989) as is the use of language to position design interventions (Yee and White, 2016).

One of the key findings that was common to both case studies was that the use of design vocabulary enabled the sharing of design practices and vice versa the lack of a distinct design vocabulary was a barrier to the sharing of design practices. Unsurprisingly the expert designers from Ryder used an established design vocabulary whilst the participants from Company A did not.

This section discusses the difficulties faced by people who were not expert designers (s.11.4.2), how the design interventions encouraged the development of a design vocabulary (s.11.4.3) and why design vocabulary is important to CoDP (s.11.4.4).

11.4.2 Design vocabulary beyond expert designers

Company A's case study illustrated how people struggled to describe design practices. A good example was how following the map making workshop manager Bob explained how 'trying to talk somebody else through [how the artefacts were created] is quite a difficult thing to do'. A further example was manager Robert whose existing design practices of making posters were described by him as 'just words with colour'. In both examples people were describing attempts to communicate design practices to people who were not expert designers. Bailey (2013, p.7) highlights this situation as requiring the development of 'a common vocabulary and language' to make design practices

‘explicit to non-designers’.

These examples contrasted with the overt design practices within the organisation which related to marketing and product design, where design practices were understood to be discrete activities, capable of being done as a stand-alone process step or contracted out to external designers.

The researcher argues that the lack of a design vocabulary should be considered not just as a symptom of people who were not expert designers engaging in design practices, but in the wider context of Gorb and Dumas’ (1987) silent design practices. By viewing it in this way it can be argued that the lack of a design vocabulary is a characteristic of the relationship between silent design practices and overt design practices within organisations. This may take two forms: firstly, people outside of the CoDP do not recognise the practices as ‘design’ and, secondly expert designers engaged in overt design practices do not recognise the design practices of the CoDP as being like their own, thus ruling out collaboration.

11.4.3 Encouraging the development of design vocabulary

The key findings demonstrated how the design interventions, in particular the initial workshops, helped to develop design vocabulary amongst participants. There were several examples of this amongst the participants from Company A:

- Manager John-Paul told prospective participants in the bicycle workshop that they would be attending a ‘disruptive design workshop’. One of the participants, manager Vince, referred to this as ‘disruption day’.

- In preparing his own design workshop - the Halloween workshop - manager Keith researched the term ‘design disruption’ including by looking at the Design Disruption Group’s website. He then described the workshop that had taken place as using ‘Design Disruption technique’.

- Manager Bob referred to using ‘design disruption’ methods in his team strategy workshop.

However, this appropriation of language also applied to the expert designers at Ryder. In the group interview with the participants from Ryder's initial workshop, who other than one person were all expert designers, they referred to having held their own 'design disruption workshop' to develop a presentation and manifesto.

11.4.4 The importance of design vocabulary to CoDP

The researcher accepts that the evidence of the development of design vocabulary by people who were not expert designers is limited and that more research is needed in this area. However, there remains a strong argument that enabling people engaged in design practices to develop a means of communicating those design practices would be beneficial both to the CoDP they are members of and to the wider organisation.

The principal benefits arise out of the transition from silent to overt design practices. The ability to communicate the nature of the design practices will arguably lead to them being recognised as 'design'. This visibility and recognition will make it easier for the CoDP to request and access the other infrastructure needs discussed in this chapter. In addition, the CoDP is far more likely to be successful in making connections with other communities within the organisation. This success will come from being able to make both artefacts and practices understandable to other communities.

11.5 Design champions

11.5.1 Introduction

The key findings demonstrated several of the participants promoting the new design practices to other members of their organisations. These encompassed Diana, John-Paul, Lynda, Mary, Bob and Keith at Company A and Sid at Ryder. These people have been referred to already as ‘design champions’.

There is a substantial body of literature that considers the role of champions in relation to innovation in organisations, notably Schon (1963), Howell et al (2005) and Rost et al (2007). Whilst there is some literature that identifies the importance of champions in relation to design in organisations, such as Yee and White (2016), there is very little literature that considers the role played by design champions, the notable exception being Matthews et al (2012).

The researcher proposes that the introduction of new design practices through the design interventions led to the emergence of individuals who fulfil the characteristics of design champions (s.11.5.2). Further the researcher proposes that the effectiveness of design champions depends upon a series of factors at different levels of the organisations (s.11.5.3). The researcher also considers the relationship between design champions and insider design activists (s.11.5.4).

11.5.2 The characteristics of design champions

In order to discuss the emergence of design champions in the two case studies the researcher proposes that the characteristics of a design champion are identified and then related to the key findings. Matthews et al (2012) define the term ‘design champions’ as describing ‘the role of designers who promote a design approach in [organisations]’ (p.2). Whilst their study was longitudinal and qualitative it was concerned with expert designers who were nominated by senior management to take part. This is clearly at odds with this research study which has identified design champions that went beyond expert designers and

who emerged from within their organisations. However, Howell et al (2005) define champions as ‘individuals who informally emerge to actively and enthusiastically promote innovations’ (p.645) whilst Rost et al (2007) argue that champions are typically volunteers. Further the researcher argues that in an organisational setting it is not important whether the design champion is an expert designer or a not provided they display the relevant characteristics.

The characteristics of design champions are discussed widely by Matthews et al. Their study was only based upon two people interviewed at an early point of a project and so Matthews et al’s proposed characteristics should only be treated as indicative examples. The researcher has considered which of those characteristics are key to being a design champion, rather than just being a designer. The four characteristics identified are summarised below in italics followed by a discussion of how these are represented in the Company A and Ryder case studies:

Design champions have deep organisational knowledge that allows them to interpret design practices and then ‘identify situations and contexts where their insights, knowledge and skills could add particular value’ (p.4) to the organisation.

In both case studies the key findings showed how insight and opportunism enabled emergent design practices to be aligned. The actions taken were markedly different in the two case studies: in Company A’s case emergent practices were aligned to existing processes whilst in Ryder’s case there was scope to align all aspects of the organisation. However, this difference was because the design champions were operating in very different circumstances in terms of the possibilities for alignment, as discussed above (s.11.2).

Design champions are encouraged to continue to use design practices having noted changes to their own and others behaviour

All of the people identified in the key findings did note changes in their own and others behaviour during the design practices introduced by the researcher. At those points in time the encouragement to continue using the design practices was provided by the researcher. In the case of manager Lynda at Company A

and manager Sid at Ryder this encouragement by the researcher continued during their development of emergent design practices. However, looking further ahead in time the role of sponsors, as an ongoing source of encouragement, would arguably become more important when the researcher is no longer present. The researcher proposes that this may be more of an issue for people who need the encouragement to act as motivation in place of a lack of the experience (in the forms of design ability and design attitude) belonging to expert designers. In Company A's case Lynda had a sponsor in the form of manager Diana whilst managers Mary and Bob encouraged each other. As well as sponsors, connections to the overt CoDP in organisations - in Company A's case the product design team - may be potential sources of encouragement.

Design champions understand that design practices 'can both challenge and enable a new strategic approach to business for the [organisation]' (p.4).

This characteristic was not evident in Company A. At Ryder manager Sid noted how the design practices involved in his collaboration with the researcher had enabled small, 'subtle' changes to the organisation whilst senior managers Mark and Andy recognised these changes as being part of a strategic approach the organisation was taking. These differences between the two cases studies were arguably because the design champions at Company A were not expert designers, and because the use of design practices as strategy was not familiar within the organisation.

Design champions recognise 'their potential to add value through presenting a 'different' way of working and the need for them to speak up and speak out about new ways of working' (p.4).

At Company A manager Lynda described the design practices as a 'totally different approach' and that 'sharing… the approach' had created something new in the organisation. In relation to the need to promote the new design practices manager Keith recognised that the design practices had motivated him to speak up and move away from giving 'stock answers'. In contrast manager Bob identified this as a pre-existing attitude which he referred to as being part of a group of 'mavericks' within the organisation.

At Ryder Sid identified himself as promoting a new way of working, through the box task intervention, and required the support of a sponsor, senior manager Andy, to make sure the rest of the organisation took it seriously.

The researcher proposes that the key findings in this research study support Matthews et al's characterisation of design champions and the researcher's argument that the design interventions led to the emergence of design champions. This discussion has also highlighted notable differences between the characteristics of design champions demonstrated by expert designers and by others, which are discussed further below in the context of the effectiveness of design champions.

11.5.3 The effectiveness of design champions

All the individuals identified by the researcher as being design champions were critical to developing new design practices in the form of the emergent design practices. However, their effectiveness needs to be considered in wider terms which include their ability to act as brokers on behalf of CoDP and to directly influence senior management.

As has already been discussed, one of the most significant impacts CoDP may have upon organisational change is in connecting CoDP to other communities within the organisation. Wenger (1998) and Lee (2007) both recognise the importance of people acting as 'brokers' in the space between different communities of practice, - a space also occupied by boundary objects and boundary negotiating objects - in order to explain and promote practices. Arguably this is the role of the design champion.

The effectiveness of design champions as brokers is determined by their ability to provide information, context and enter into discussion in order to make design practices intelligible to other communities or to negotiate shared understanding between communities. The researcher suggests that the ability of design champions to do this is dependent upon many organisational factors but that principal among them is the level of design awareness. At a meta level this means

the general level of awareness of design practices throughout the organisation. However, the key findings suggest that design awareness at macro and micro levels may be more important to the effectiveness of design champions.

At a macro level, design champions need to be recognised by other communities as being engaged in overt design practices. This recognition is not automatic for all people and pro-active steps may need to be taken to achieve it. These steps may include sponsors in other communities and the researcher argues that sponsors who are familiar with design practices or who are expert designers may be particularly effective. Another important step is establishing a design vocabulary, as already discussed above (s.11.3).

The key findings also suggest that at a micro level people need to establish credibility and be recognised as owning the design practices to successfully promote them. An example of this was manager Lynda at Company A who explained that people participating in her workshops, as part of the map consultation, needed to feel that design practices belonged to her and that if they adopted them Lynda would support them. This would not be possible if people felt the design practices belonged to an external expert designer, in this case the researcher, who was not there to support them.

A further factor upon the effectiveness of design champions is their ability to influence senior management. Much of this has already been discussed above, in the context of alignment (s.11.2), and the researcher argues that both strategic alignment and situated alignment of CoDP will present opportunities for design champions to influence senior management.

Matthews et al suggest that in addition to alignment the size of an organisation may be an important factor in how design champions may influence senior management. Their study concerned a large organisation (more than 250 employees) and led to the proposal that design champions may be more able to influence senior management in small and medium sized organisations. This proposal was based upon the observation that in large organisations the design champion is often not a senior manager and does not have the support of senior management ‘about the change required to become design led’ (p.5). Whilst this

proposal is overly simplistic, ignoring the interdependency of multiple organisational factors, it does serve to highlight this as a potential factor. Further, Matthews et al's proposal explores the dynamic between senior management, the design champion and the 'external design mentor' (p.7). Arguably in this research study the role of the external design mentor was played by the researcher. This dynamic is illustrated below (fig.11.2 and fig.11.3). The differences that Matthews et al are seeking to highlight are:

> In large enterprises the design champion is often not a senior manager and does not have the full support from senior [management] about the change required to become design led (although there may be some exceptions). Therefore the support required is to both grow capability of design-led innovation and also to assist in managing up to demonstrate the value to the [senior management] team. (p.5)

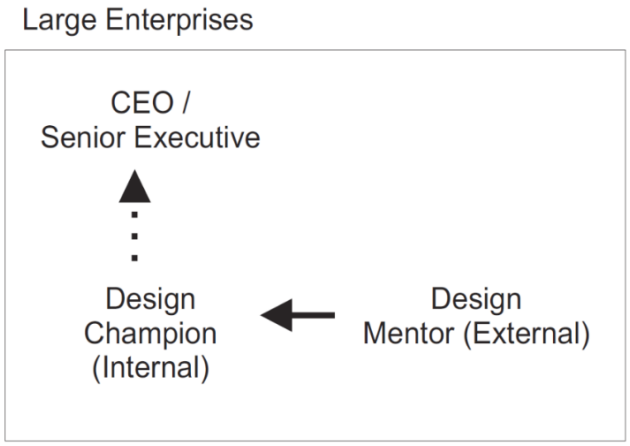


Figure 11.2 Large Enterprises Design Champion (Matthews et al, 2012, p.5)

> In contrast, there is a very different dynamic in small and medium enterprises, where the initial support of [senior management] is essential, often through a design mentor, and then [senior management] identifies the design champion and provides the support to allow them to implement new ways of working, as illustrated in Figure 2. The design mentor in this case then provides additional scaffolding to this person as required, but the sponsoring of the design by [senior management] reduces issues around change management. (p.6)

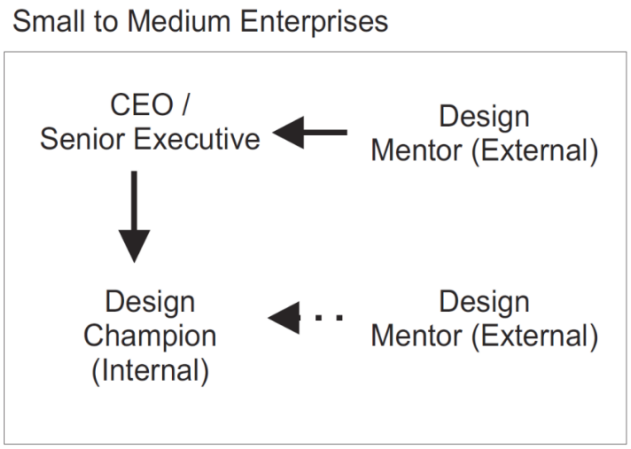


Figure 11.3 Small to Medium Enterprises Design Champion, (Matthews et al, 2012, p. 6)

These different dynamics were arguably borne out by the key findings in this study where Company A were a large organisation and Ryder were a medium sized organisation. In Company A's case only managers Lynda and Diana had the support of and direct access to senior management, whilst the researcher had no direct relationship with senior management. In contrast, in Ryder's case the researcher had a strong relationship with senior management from the very beginning and was then able to support manager Sid who also had support and access to senior management.

The researcher argues that Matthews et al's proposal fails to consider the fact that structures in organisations are myriad, even in the case of organisations of the same size. Accordingly, whilst Matthews et al's proposals are based upon a difference in organisational size their real value is in highlighting the importance of a dual approach where design champion and design mentor both have access to senior management. The researcher does not share the distinction made by Matthews et al that the design mentor is external. In Matthews et al's case and in this research study the design mentor happened to be external. However, the researcher proposes that an internal design mentor, a sponsor who is familiar with design practices or who is an expert designer, could play a similar role.

This theory goes some way to explaining the different dynamics regarding senior management, the champions and the researcher in the two case studies where Company A were a large sized organisation (with over 10,000 employees) and

Ryder were a medium sized organisation (with 150 employees).

Of the design champions in Company A's case - managers Diana, John-Paul, Robert, Lynda, Mary, Bob and Keith - only Lynda and Diana had the support of a senior manager, Jean, and with it access to resources and a direct route to senior management to seek to demonstrate the value of the design practices they were using. It is also important that in terms of initiating and reporting back on the design interventions the researcher only had a relationship with Diana and Lynda and was not able to influence senior management. One of the results of this was that the other design champions were only able to access existing resources, through existing team structures and processes, and had no obvious means of demonstrating the value to senior management. However, this was not only the result of the dynamic of the relationship but also the fact that they were engaged in silent design practices and lacked a design vocabulary with which to articulate them.

In contrast, the design champion in Ryder's case - manager Sid - had the support of senior managers Bill and Andy in the context of an explicit strategy of collaboration and the development of champions. Bill went so far as to explain how senior management had orchestrated the relationship between Sid and the researcher and how 'Sid picked up on it and followed through with it and became a champion'. With this support came access to resources and a direct route to senior management to seek to demonstrate the value of the design practices Sid was using. Sid also had the support of the researcher who took on the main responsibility for preparing, implementing and reporting back on the box task intervention. It is also important that the researcher had a direct relationship with senior management, initially with Bill but later also with Andy, which allowed the researcher to influence senior management by engaging in critical dialogue.

11.5.4 Design champions as insider design activists

Arguably the design champions identified by Matthews et al (2012) share many, if not all, of the characteristics of insider activists identified by Briscoe and Gupta (2016). On this basis the researcher argues that the process outlined above, for identifying the characteristics of design champions (s.11.5.2) and

considering their effectiveness (s.11.5.3) may offer a suitable model for inquiring into insider design activists.

11.5 Design space

11.5.1 Introduction

Given the importance placed upon creating physical artefacts as an essential part of design practices it is unsurprising that a physical space may be required for these design practices to take place. Schon (1985) stresses the importance of a ‘design studio’ space for expert designers whilst Yee et al (2016) emphasise the importance of a dedicated space for all people involved in design activity.

In terms of how this physical space may be used Binder et al (2011) emphasise the need for ‘configurability’ so that the space may be continually configured and reconfigured as design projects progress and change both in terms of the nature of the activities and the number of people involved. Importantly they identify this configurability as being as a source of creative experimentation allowing expert designers to follow an exploratory process, develop a sense of ownership and make their own design decisions. The researcher proposes that this importance extends beyond expert designers and that the key findings show it to be a requirement of CoDP. Accordingly, this section discusses examples of design spaces from the key findings (s.11.5.2) and the particular needs of people who are not expert-designers (s.11.5.3).

11.5.2 Design spaces in the case studies

The researcher took great care in finding suitable spaces for the initial workshops to take place - using teaching and conference spaces within the Design School. Whilst the choice of subsequent design spaces was more opportunistic, based upon resources made available by the two case study organisations, the researcher maintained that they must be suitable to the proposed design practices. The best example of this was in the Company A bicycle workshop: manager John-Paul wanted to use conference facilities in hotel that was part of a large chain but the researcher insisted that they use a nearby independent arts centre instead.

The researcher shares Binder's view that configurability is important and in all of the introduced design practices participants were encouraged to reconfigure the space by moving tables and chairs to suit their needs and later arranging the artefacts they had created. It was also important to the researcher that the spaces contained examples of artefacts people had already created - in the Design School this took the form of student work - and that the spaces were rough so that people were not worried about making a mess.

10.5.3 The importance of design spaces beyond expert designers

The Company A case study demonstrated that the fundamentals of design space, as argued by Binder et al apply equally to all members of organisations. The emergent design practice of turning the map into a handbook provided clear examples of:

Following an exploratory process

The sensemaking process developed by Lynda was entirely exploratory - she described it as 'starting with a blank sheet of paper'. This process, which involved moving artefacts around the room, would not have been possible in Lynda's regular office.

Developing a sense of ownership

Lynda made the decision to move her workstation from her regular office to the design space so that she could work there full time. This closely associated her with the design space both in her view and in that of others in the organisation. It was also important that the room was in a forgotten part of the head office building as there was no conflict regarding who it belonged to.

Making their own design decisions

As well as making decisions regarding the process to be followed, Lynda's

incubation in the design space arguably influenced the way she dealt with the external graphic design firm. When they declined her offer to visit the design space Lynda sent the design firm photographs of the artefacts.

In addition to Binder et al's suggestions the researcher also proposes that the following factors are important:

Permission to think and act differently

The design space should be different to people's usual workplace. As well as being motivational this will also encourage people to think that the normal rules do not apply.

Accessible to other communities

The researcher accepts that this may conflict with some of the other factors as it may cause people to hesitate if they think outsiders will be judging their work. However, in Lynda's case the ability of other people to access the design space meant that many potential connections were made with other communities. In this sense the design space may be a potential boundary object or boundary negotiating artefact.

Contact with expert designers

As discussed above in the context of embedding design attitude (s.11.3.4), the people's development may benefit from ongoing access to expert designers. The researcher suggests that this is particularly relevant to the design space where the expert designer can help by critiquing work and suggesting possible courses of action. The expert designers may be external, as with the researcher in Lynda's case, however in the long term it would be beneficial if they were from other CoDP within the organisation.

11.5 Summary

This chapter has brought together the knowledge developed by this research study that relates to the needs of CoDP in order that design interventions may be impactful and cause positive organisational change. Specifically, it has considered the applicability of Wenger's (1998) infrastructure needs of communities of practice to CoDP as well as identifying situated alignment, design vocabulary, design champions and design space as additional requirements for CoDP to flourish. This knowledge can be summarised as follows:

Infrastructure needs of communities of practice

CoDP share the same needs as Wenger's communities of practice: access to resources, recognition for people's contributions, alignment to organisational aims and official sponsors.

Situated alignment

Building on the work of Junginger and Sangiorgi (2009) and Deserti and Rizzo (2014a), a situated approach to introducing new design practices may be an alternative to strategic alignment to organisational aims and may be more suitable to the unfamiliar and uncertain nature of new and exploratory design practices. In terms of impact it may lead to emergent change (Higgs and Rowland, 2015) from within an organisation. However, in order pursue a situated approach the following conditions needs to be present:

- Members of the CoDP must be prepared to accept the risk of not being strategically aligned to an organisational aim: the risk being that the impact of the new design practices are not beneficial to the organisation. Perception of this risk may be increased where people are unfamiliar with using design practices.

- The CoDP needs to be structured as a joint inquiry that engages both senior managers and expert designers as stakeholders. This structure

mirrors Wenger's (1998) model of boundary practice.

Design vocabulary

Establishing a design vocabulary, capable of articulating new design practices is beneficial to CoDP and to the wider organisation. In particular:

- Design interventions encourage the development of a design vocabulary which may be particularly helpful to people who are not expert designers.

- The development of a design vocabulary may help silent design practices (Gorb and Dumas, 1987) to become overt, enabling them to make connections with other communities within the organisation.

Design champions

Design champions (Matthews et al, 2012) are important to the success of CoDP as they act as brokers, promoting new design practices and enabling connections with other communities within the organisation. In order to be effective they require:

- Design practices need to be made overt and supported by a design vocabulary.

- Champions must be credible to others which is achieved through demonstrating ownership of the design practices.

- Champions and their mentors – who to begin with is the external expert designer – both require access to senior management.

Design space

A dedicated design space is important to the sustainability of CoDP. In particular, it is fundamental to the development of people engaged in design practices.

Chapter 12

Conclusions and discussion

12.1 Making sense of it all

This research study has revealed that the relationship between new design practices and organisations is complex and that many of the issues that connect them are dynamic and interdependent. In order to make sense of all this the researcher developed and used a new theoretical framework based on the work of Wenger (2008). The communities of design practice (CoDP) framework enabled and informed the gathering, analysis and discussion of data from the two case studies.

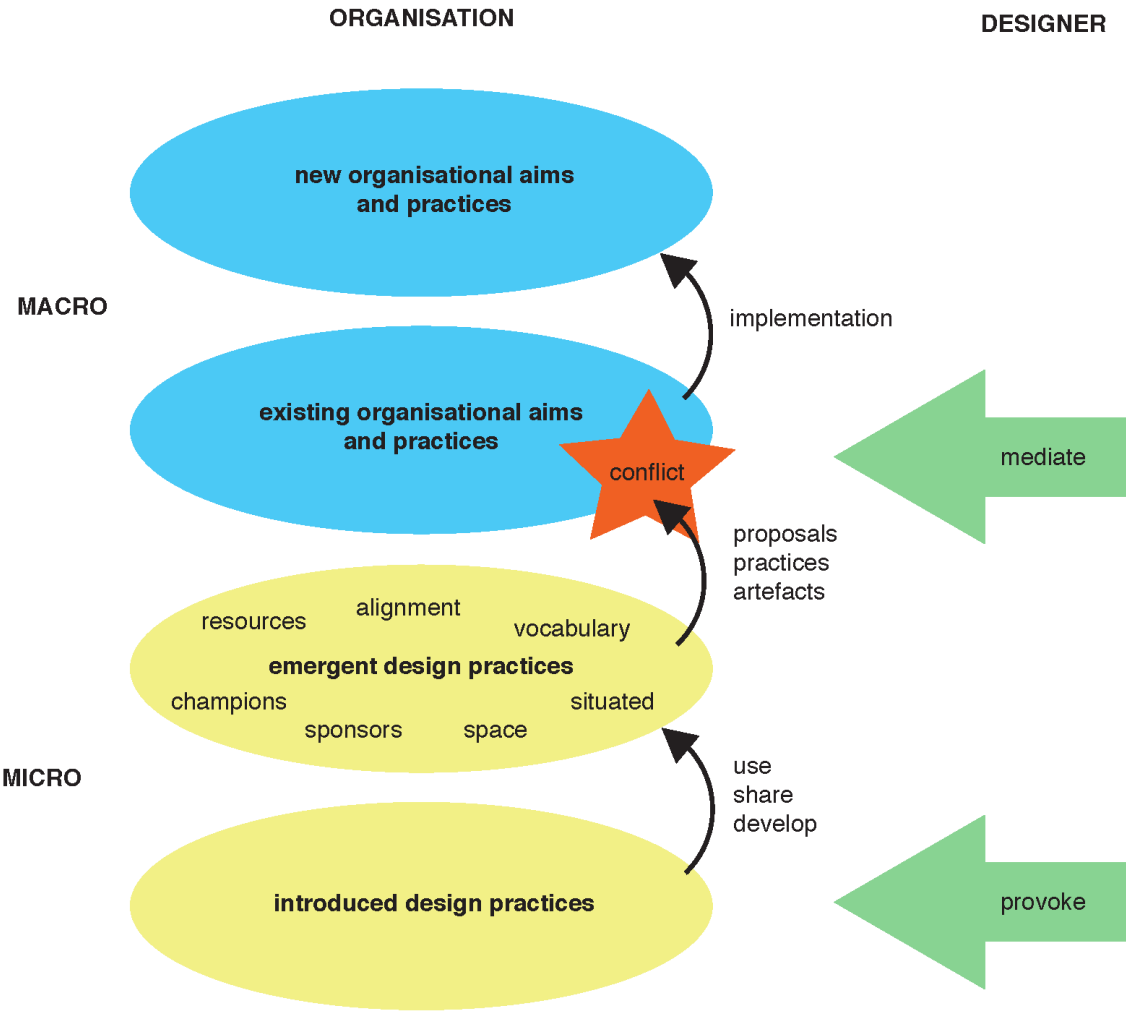


Figure 12.1 How design interventions drive emergent change

This chapter seeks to draw some conclusions from the research study, firstly, by answering the research questions (s.12.2) and secondly by making three proposals for discussion in the areas of driving macro level change (s.12.3), design activism (s.12.4) and design culture (s.12.5). This chapter concludes by summarising the contributions made to new knowledge (s.12.6), suggesting future work (s.12.7) and attempting to step beyond this thesis in an epilogue (s.12.8). The researcher proposes that some of these conclusions and discussion points may be better understood by also referring to Figure 12.1, above, which seeks to illustrate several of the key findings.

12.2 Answering the research question

What is the impact of new design practices within an organisational setting?

The results of this inquiry have been discussed in detail in the two previous chapters (ch.10-11). How those findings have informed the main research question (above) and the issues raised by them is summarised as follows:

What role do artefacts play?

As discussed in Section 10.2, artefacts played a dual role, creating impact at both micro and macro levels of organisations by acting as a catalyst in forming new CoDP by encouraging individual engagement and collaboration with others and by enabling connections to be made between CoDP and other communities of practice, including other CoDP, within an organisation. This was helped by the unfinished nature of some of the artefacts (s.10.4).

It was also demonstrated that artefacts were central to the researcher's own practice enabling him to create provocations, develop his reflective practice (s.9.2) and use artefacts as the subject matter for critical dialogues (s.10.4).

How do members of organisations respond to new design practices?

As discussed in Chapters 7 and 8, members of organisations engaged in and shared design practices that were introduced to them through design interventions. Members also engaged in emergent design practices by using the introduced design practices outside of the design interventions and by developing their own design practices. Engaging in emergent design practices led to the development of design attitude (Michlewski, 2008), engaging in sensemaking as distinct form of design practice and stimulating a transformative process in non-design disciplines (s.10.3). It also led to members performing the role of design champion (s.11.5). These responses applied to all

members who participated regardless of whether they were expert designers or not.

What role does the external expert designer play, in the context of the researcher's own practice?

As discussed in Section 10.4, the researcher played a political role that was both *provocative* and *critical*, informed by an approach based upon collaborative design activism and design disruption. This took the form of creating provocative artefacts and initiating critical dialogue. This role helped to drive organisational change by creating conflict through micro level change and then resolving that conflict so that it could be implemented at a macro level.

The exploratory nature of the researcher's practice meant that it was not a good fit with all of the roles proposed by Yee and White (2009) and Howard and Melles (2001) (s.9.3). In addition, the use of critical dialogue to resolve conflict suggested a new role of 'mediator' (s.10.4.5).

In seeking to effect change from within organisations the researcher occupied a role somewhere in between the traditional roles of outsider and insider, whilst at the same time moving back and forth between the two. Gaining trust was important and enabled the researcher to enjoy some of the benefits of being an insider (s.9.4).

How can the impact of new design practices be understood at micro (individuals), macro (organisational processes and aims) and meta (role of design) levels within organisations?

All levels of impact were discussed in Chapters 7 and 8.

The response of individual members has already been summarised above. Micro level impact in the context of organisational change was demonstrated through members engaging in emergent design practices, making proposals for change and developing insights into how they could affect organisational change.

At a macro level impact was demonstrated both through meeting existing organisational aims and through implementing changes to practices. The adjunctive nature of some of the design led workshops (including leadership programmes and team building) and the development of a new staff handbook for Company A all satisfied existing organisational aims. Ryder responded to proposals for change that came out the introduction of new design practices at a micro level, from the *box task* intervention, by enacting macro level changes to practices. This macro level change can be understood as emergent change (Higgs and Rowland, 2015) from within the organisation. The value of emergent change is that it creates an outcome for the organisation that could not have been achieved another way.

At a meta level, new design practices contributed towards the further development of organisational design culture through increased awareness of design by members, sharing design practices with other parts of the organisation and the promotion of design practices through the creation of design champions. This impact can be understood both as contributing towards an overarching 'design conversation' (Jenlink, 2001) within the organisation and, at a more pragmatic level through a form of 'creative exchange (Bowen et al, 2016).

What conditions are needed for communities of design practice to flourish?

Chapter 11 has described how building upon both organisational theory (Wenger, 1998) and design theory (Yee and White, 2016) the following conditions were important to CoDP: access to resources, recognition for people's contributions, alignment to organisational aims, official sponsors, design vocabulary and design champions.

In addition to those established conditions this research has also built upon the work of Junginger and Sangiorgi (2009) and Deserti and Rizzo (2014a) and developed further the concept of a *situated* approach for aligning new design practices. This was shown to be an important condition if CoDP are to drive

emergent organisational change.

Is communities of design practice a useful framework for inquiring into the relationship between design practices and organisations?

At the centre of the CoDP framework, based upon Wenger's (2008) modes of engagement, are the core elements of engagement, design attitude and alignment. At a practical level these elements enabled the researcher to organise the inquiry and then the data both existing and new design practices could be understood. However, the real value of this framework was in enabling the researcher to consider the relationships between each of these elements and also between the CoDP and other parts of the organisations. This value is discussed further below (s.12.4).

12.3 Design interventions drive organisational change by creating and then resolving conflict

For expert designers seeking to generate change from within organisations it is no longer sufficient to argue that the results of exploratory design interventions are unpredictable but likely to be of value. The introduction of new design practices is a catalyst for the creation of new organisational design practices which, through the creation of artefacts and the actions of individuals, will conflict with the existing organisational politics. The designer who wants to drive organisational change needs to situate these interventions so that this conflict occurs in areas that have infrastructure support but that are also close to the heart of the organisation in terms of its aims and values. Consideration must also be given to the nature of the new design practices and the artefacts they will create, and whether they are likely to enable insights into how organisational change may be effected. The designer must then play the role of mediator between the sources of conflict and senior management so that understanding can be achieved and decisions made - only then can organisational change be achieved.

The initial micro level change in individuals begins with engaging in new design practices and, through multiple interventions, can lead to people developing their own design practices, acting as design champions and, in some cases, embarking upon a transformational process in their own disciplinary field, enriched by competence in using and developing design practices. The ability for this micro level change to cause macro level change by creating conflict with existing aims and practices has been proposed by Deserti and Rizzo (2014b). However, their proposal is incomplete as such conflict must be resolved in order for senior managers to take action and implement macro level change (Fullan, 1982). This sequence of conflict-resolution-implementation was demonstrated by the researcher's own design approach where *creating provocative artefacts* and *initiating critical dialogue* were subsets of *creating conflict* and *resolving conflict* respectively.

In order for such macro level change to be valuable it needs to concern aims and practices that are central to the organisation. In the case studies Company

A had to contemplate the journeys its members made during the duration of their employment whilst Ryder, a firm of architects, were asked to consider their own creative practices – in both cases these were core issues. This need to situate new design practices builds upon proposals made by Junginger and Sangiorgi (2009) and Deserti and Rizzo (2014a).

12.4 Design activism from within organisations is an effective form of design practice

The question of whether a design activism approach is effective in driving organisational change from within eclipses Berglund's (2013) concerns about complicity. As soon as we understand that it is the context that has changed and not the nature of the artefacts (Krippendorff and Butter, 2007) we can begin asking what the meaning of design activism artefacts are within an organisation and whether they are useful in driving change. Those questions reveal that it is precisely because design activism is taking place within organisations that it is effective. Whilst this may represent 'a different kind of political action' (Lenskjold et al, 2015, p.70) to traditional models of design activism, it remains political both in the form of the new design practices and in their potential for conflict with existing political agendas within organisations.

The researcher's approach, of creating provocative artefacts and initiating critical dialogue, was the result of a design practice based upon collaborative design activism and disruptive design. This research study has shown there to be an overlap between these activist and disruptive approaches with the distinctive features of disruptive design being a rejection of traditional design processes and an experimental use of methods. Even though these features fall outside of what is known about design activism, arguably they may well be characteristics of a design activist approach when working within organisations.

This research study demonstrated that many of the artefacts created, both by the researcher and by members of the organisations, were unfinished objects, a characteristic already noted in the context of both design activism (Julier, 2009) and disruptive design (Celaschi et al, 2003). This 'unfinishedness' enabled the artefacts to be persistent and enduring. This was highlighted in the case studies by the nature of the large map made by members of Company A. By sustaining the artefacts as an interface that people could use, unfinishedness enabled artefacts to fulfil a boundary negotiating role (Lee, 2007). This boundary role helped to create connections between the communities using the new design practices and other parts of the organisations. It also allowed the artefacts to serve as a focal point for the researcher's use of critical dialogue.

The use of a design activism approach, and the artefacts it generates, is particularly effective within an organisation. Despite this claim running counter to traditional notions of activism – placards being waved at the company gates – it is precisely this internal context that makes it effective. In the research study people were motivated by the design interventions to use design practices, create artefacts, develop insights and make proposals that challenged the status quo. The effectiveness of these challenges relied upon people being able to make them relevant, engage with core issues and exploit existing practices in order to be heard. Adopting Briscoe and Gupta's (2016) arguments regarding insider social activism, it is difficult to see how design activism initiated from outside the organisations could have made the same challenges or succeeded in influencing senior management.

12.5 Communities of design practice provides a dynamic model for understanding organisational design culture

Despite the proposals for using practice theory to understand design activity (Julier, 2007; Kimbell, 2009) and the suggestion that organisational design culture is made up of design practices, in the form of legacies (Junginger, 2015), there is not a model for inquiring into and understanding organisational design culture. By breaking design culture down into shared design practices, in the form of communities of design practice, we can begin to understand the nature of design culture and how it connects to and influences other parts of an organisation. This approach enables an inquiry beyond the traditional domains of expert designers and overt design activity and instead considers individual members, ways of doing things, artefacts and the relationships between these things.

In this research study adopting a CoDP approach revealed that for new design practices to be sustained they required a number of conditions - access to resources, recognition for people's contributions, alignment to organisational aims, official sponsors, design vocabulary and design champions – already identified by design academics (Yee and White, 2016). This approach also enabled the identification of a further condition, in situated alignment (Junginger and Sangiorgi, 2009; Deserti and Rizzo, 2014a), and the proposal that situated alignment may be critical to design practices introduced as part of exploratory design interventions.

The value of CoDP extends beyond being an inquiry tool. In this research study it acted as a nexus for other relevant organisational theory including practice theory, boundary objects and organisational change. This collective body of theory, allied to design theory, enabled a much deeper understanding of the relationship between design culture and organisational life.

12.6 Contributions to knowledge

The contributions this research study has made to knowledge can be summarised as follows:

- Development of a new theoretical framework of communities of design practice as a methodological tool for inquiring into organisational design culture.

- Demonstrating that communities of design practice are distinct from other communities of practice within organisations. Specifically, their needs go beyond those envisaged by Wenger (2008) and include being situated, a design vocabulary, design champions and design spaces. These special needs can be attributed to the creation of artefacts being a fundamental aspect of design practices and that design practices are often covert, silent or unknown within organisations.

- Demonstrating that new design practices drive organisational change through a sequence of conflict-resolution-implementation. This builds upon Deserti and Rizzo's (2014b) model, of design driving organisational change from within by creating conflict, by demonstrating acts of resolution, in the form of critical dialogue, as the missing link between conflict and implementation.

- Demonstrating that in order for new design practices to drive emergent organisational change a situated approach must be adopted. A situated approach requires thought to be given to how design practices are situated so as to be either directly or indirectly engaged with organisational change. This enables change to emerge from within organisations and as such differs from the traditional approach of strategic alignment which reinforces existing organisational aims. This builds upon the proposals for a situated approach made by Junginger and Sangiorgi (2009) and Deserti and Rizzo (2014a).

- Proposing a new role of ‘mediator’ for expert designers working within organisations, in the context of roles that may influence organisational change. The characteristics of the mediator role include clarification, by developing shared understanding of new design practices and reaction/interaction, by developing insights into how to use design practices to influence senior management. This role is distinct and is in addition to those roles suggested by Yee et al (2009) and Howard and Melles (2011).

- Demonstrating the potential for all members of organisations engaging in new design practices to develop design attitude and to begin a transformational process in their own disciplinary field by developing competence in the use of and development of new design practices. These findings build upon the proposals made by Michlewski (2008) and Siegel and Stolterman (2008) by extending them beyond the domains of expert and novice designers, respectively, to include all members of organisations.

- Demonstrating that collaborative design activism is an effective form of design practice when used within for-profit organisations. This applies to external designers working within organisations and to members of organisations who have participated in design interventions. The effectiveness of this approach is underpinned both by the unfinished nature of the provocative artefacts created and by the application of organisational knowledge by members. This proposal builds upon the existing concepts of ‘everyday’ design activism (Julier, 2014b) and ‘minor’ design activism (Lenskjold et al, 2015) and extends them into the for-profit domain.

12.6 The future

Whilst this research study has managed to progress several strands of academic design theory, in doing so it has also revealed more areas that require inquiry as follows:

- If organisational design culture is knowable can an understanding of its full extent and nature, in terms of relationships with other parts of an organisation, be gained by using the CoDP framework? How would such an inquiry be commenced and what value would it offer a subject organisation?

- If design is to become more critical to organisational life designers may need to move on from being instigators of change to being mediators of change. What are the opportunities for such a role and how can it be practiced?

- What is the relationship between insider social activism and insider design activism? Are these complimentary approaches? How would an outsider designer balance the interests of both the internal activists and the organisation?

12.7 Epilogue

An obvious, and important, question to ask at the end of any piece of doctoral research is whether the new knowledge being claimed is useful to others. This research study relied heavily on a number of key pieces of literature, from both design and organisational studies traditions, precisely because they offered sufficient theoretical and empirical backbone to act as spring boards for further research. To do the same this inquiry has attempted to be useful both in a practical and a political sense.

It is practical because it seeks to reveal and develop understanding of design practices and how they might be initiated and sustained in order to effect organisational change. Arguably the framework of *communities of design practice* is more than just a theoretical lens – rather it is a practicable tool that can be adopted and adapted by both designers and members of organisations.

It is also political because it recognises that in an organisational context design is not a panacea, rather new design practices need to be nurtured in order to compete with existing organisational politics. This inquiry considers the introduction of new design practices to be overtly political acts, as forms of collaborative design activism within organisations. In doing so it recognises the potential for conflict between these different political agendas and uses various strategies, including provocation and critical discourse, to situate new design practices in such ways as to enable the proposed change to be understood, to be viewed as relevant to the core concerns of the organisations and, ultimately, to be implemented.

Accordingly, rather than being a piece of research about the ‘influence of design on organisation life’ (Buchanan, 2008, p.1), this research study throws a light upon an emerging form of design practice: design as a practical and political inquiry into organisational life.

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Appendix A: Examples of individual consent forms

INFORMATION SHEET AND CONSENT FORM

Project title: Design Disruption
Researcher: Mark Green (PhD student at Northumbria University)
Participants: Company A
Date of workshop: 30th April 2015

INFORMATION SHEET

I am proposing to observe the workshop on 30th April 2015 for the purposes of my PhD research, which relates to creative workshops. As I will also be one of the facilitators of the workshop, in order to gather data I propose to video the workshop, take photographs, write observations and ask participants to complete a short exit questionnaire.

In relation to digital photographs and video recordings it is not intended to record images of the participants that could be identified by others as this is not relevant to the research. In the event that such images are inadvertently recorded they will be deleted during the subsequent data analysis phase and by no later than 2 months after the date the recording was made. The images will only be seen by me and my immediate supervision team.

Any data recorded by me will be fully anonymised and will only be used for the purposes of my PhD research. The data will be stored on the University's U drive. Save for the circumstances set out at paragraphs 6 and 7 of the Consent Form, this data will be deleted from the U drive and from my personal computer, or any other devices that have been used to access the data, using the Secure Empty Trash facility at the end of my PhD and by no later than January 2017.

I will only film the workshop if I receive agreement from all participants. Also, I will cease filming at any time during the workshop should any of the participants object.

I intend to ask each of the participants to sign a consent form at the beginning of the workshop, a copy of which is attached.

In the event that any of the participants have any concerns regarding my involvement or require any further information they may contact me by email at mark.green@northumbria.ac.uk or my supervisor Professor Paul Rodgers at paul.rodgers@northumbria.ac.uk .

Kind regards

Mark Green

30th April 2015

CONSENT FORM

Please initial box

1. I confirm that I have read the Information Sheet from Mark Green dated 30th April 2015 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without any consequences for me. ☐

3. I have been informed that all or part of the workshop session on 30th April 2015 may be filmed and/or photographed and I give my consent to this. ☐

4. I understand that all information I provide will be treated as confidential and will be anonymised. ☐

5. I understand that in the event of any intellectual property being created it shall be the property of Northumbria University. ☐

6. I agree to the use of anonymised direct quotes, from both the workshop session and any completed questionnaires, in publications and presentations arising from this study. ☐

7. I agree to the use of anonymous still images (excluding those showing my personal image or information from which I could be identified) taken during the workshop session in publications and presentations arising from this study. This consent does not extend to continuous video recordings. ☐

8. I agree to take part in the above study. ☐

_____	_____	_____
Name of Participant	Signature	Date
_____	_____	_____
Researcher	Signature	Date

INFORMATION SHEET AND CONSENT FORM

Project title: Design Disruption
Researcher: Mark Green (PhD student at Northumbria University)
Participants: Ryder
Date of activity: September 2015

INFORMATION SHEET

During the week 14th to 17th September 2015 I will, with Ryder's full consent, be setting a creative brief to a number of Ryder employees ("the Activity"). I am proposing to observe the Activity taking place within Ryder's offices for the purposes of my PhD research, which relates to design interventions within organisations.

If you have previously consented, or not objected, to take part in the Activity but at any time wish to change your mind and withdraw please contact me by email at mark.green@northumbria.ac.uk upon which your involvement will immediately be cancelled and any data collected in relation to you will be copied to you and deleted from my research records.

As I will also be the facilitator of the activity, in order to gather data I propose to video the activity, take photographs, write observations and ask participants to complete a short exit questionnaire.

In relation to digital photographs and video recordings it is not intended to record images of the participants that could be identified by others as this is not relevant to the research. In the event that such images are inadvertently recorded they will be deleted during the subsequent data analysis phase and by no later than 2 months after the date the recording was made. The images will only be seen by me and my immediate supervision team.

Any data recorded by me will be fully anonymised and will only be used for the purposes of my PhD research. The data will be stored on the University's U drive. Save for the circumstances set out at paragraphs 6 and 7 of the Consent Form, this data will be deleted from the U drive and from my personal computer, or any other devices that have been used to access the data, using the Secure Empty Trash facility at the end of my PhD and by no later than January 2017.

I will only film the activity if I receive agreement from all participants. Also, I will cease filming at any time during the Activity should any of the participants object.

I intend to ask each of the participants to sign a consent form at the beginning of the Activity, a copy of which is attached.

In the event that any of the participants have any concerns regarding my involvement or require any further information they may contact me by email at mark.green@northumbria.ac.uk or my supervisor Professor Paul Rodgers at paul.rodgers@northumbria.ac.uk.

Alternatively, please contact Peter Buchan of Ryder who has full knowledge of the activity.

Kind regards

Mark Green

September 2015

CONSENT FORM

Please initial box

1. I confirm that I have read the Information Sheet from Mark Green dated September 2015 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without any consequences for me. ☐

3. I have been informed that all or part of the Activity during 14th to 17th September 2015 may be filmed and/or photographed and I give my consent to this. ☐

4. I understand that all information I provide will be treated as confidential and will be anonymised. ☐

5. I understand that in the event of any intellectual property being created it shall be the property of Northumbria University. ☐

6. I agree to the use of anonymised direct quotes, from both the workshop session and any completed questionnaires, in publications and presentations arising from this study. ☐

7. I agree to the use of anonymous still images (excluding those showing my personal image or information from which I could be identified) taken during the workshop session in publications and presentations arising from this study. This consent does not extend to continuous video recordings. ☐

8. I agree to take part in the above study. ☐

_____	_____	_____
Name of Participant	Signature	Date
_____	_____	_____
Researcher	Signature	Date

Appendix B: Emails regarding organisational consent

From: **Mark Green** mark-green@live.co.uk
Subject: Ryder case study
Date: 7 June 2017 at 13:50
To: [redacted]

Dear [redacted]

I hope you are well.

I am getting near to the end of my PhD studies and will be handing in my thesis in the next few weeks. Accordingly I thought it appropriate to let you see how I have represented the data gathered from the people who were interviewed from Ryder.

I attach the analysis of the Ryder case study, taken from my draft thesis, for your consideration. The names of the individuals will be changed prior to submission so that they are not easily identifiable by others.

My aim has been to present the data in an objective manner and to use the data only insofar as it relates to my research interest: what happens when new design practices are introduced into an organisation.

I am satisfied that the data used from Ryder is not derogatory in any way and does not contain any sensitive or confidential information. If, however, this is not the case I am happy to make any necessary amendments. As such I am happy for you to forward this email and the attachments to all of the interviewees. If possible I would like to make any amendments by 16th June.

If you would like to discuss this or any other issues with me I would be happy to do so either in person or by telephone on 07521204093.

Kind regards

Mark

From: **Mark Green** mark-green@live.co.uk
Subject: [redacted]
Date: 7 June 2017 at 13:43
To: [redacted]

Dear [redacted]

I hope you are well.

I am getting near to the end of my PhD studies and will be handing in my thesis in the next few weeks. Accordingly I thought it appropriate to let you see how I have represented the data gathered from the people who were interviewed from [redacted].

I attach the following extracts from the draft thesis for your consideration:
- profiles of the interview participants
- analysis of the [redacted] case study

The names of the individuals have been changed so that they are not easily identifiable by others. I have added the real names in red next to the profiles.

My aim has been to present the data in an objective manner and to use the data only insofar as it relates to my research interest: what happens when new design practices are introduced into an organisation.

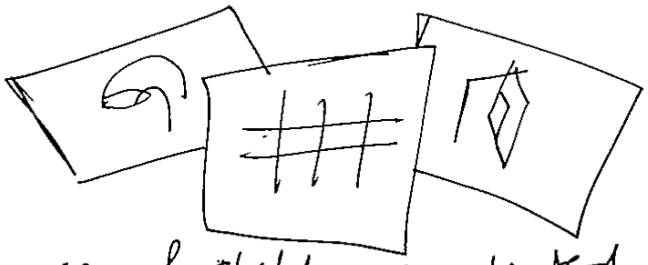
I am satisfied that the data used from [redacted] is not derogatory in any way and does not contain any sensitive or confidential information. If, however, this is not the case I am happy to make any necessary amendments. As such I am happy for you to forward this email and the attachments to all of the interviewees. If possible I would like to make any amendments by 16th June.

If you would like to discuss this or any other issues with me I would be happy to do so either in person or by telephone on 07521204093.

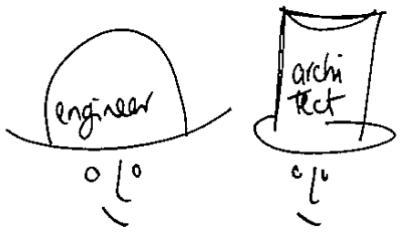
Kind regards

Mark

Appendix C: Examples of notes made in researcher's journals



- use of sketching very limited over the 3 days
- the main building "design" process consisted of just 3 sketches including the grid sketch
- people used own sketches (average 1 or 2) to explore form of bits of structure eg. how 2 walls meet



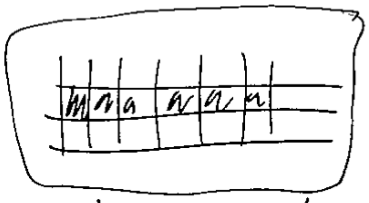
- people tended to wear their own hats rather than assuming roles to fill out the project

↙ what are you doing?

← can you show me

→ come and look at this

└ access to the model/artefact
linked to those with technical knowledge
└ technician led process

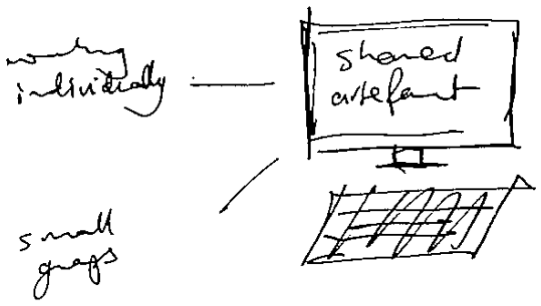


progress for initial design - pen grid sketch - to digital model very quick with little time for discussion or development - caused by high technical skills - could some slowness be built into the process at the start + ongoing?

(4 - 24

Thoughts :-

Actual model on last 3 days

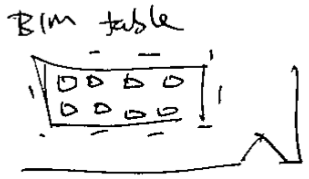


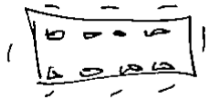
project managed driven by project plan

design activity only loosely defined:

-> "design review"

"design authority"





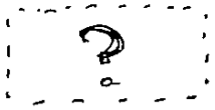
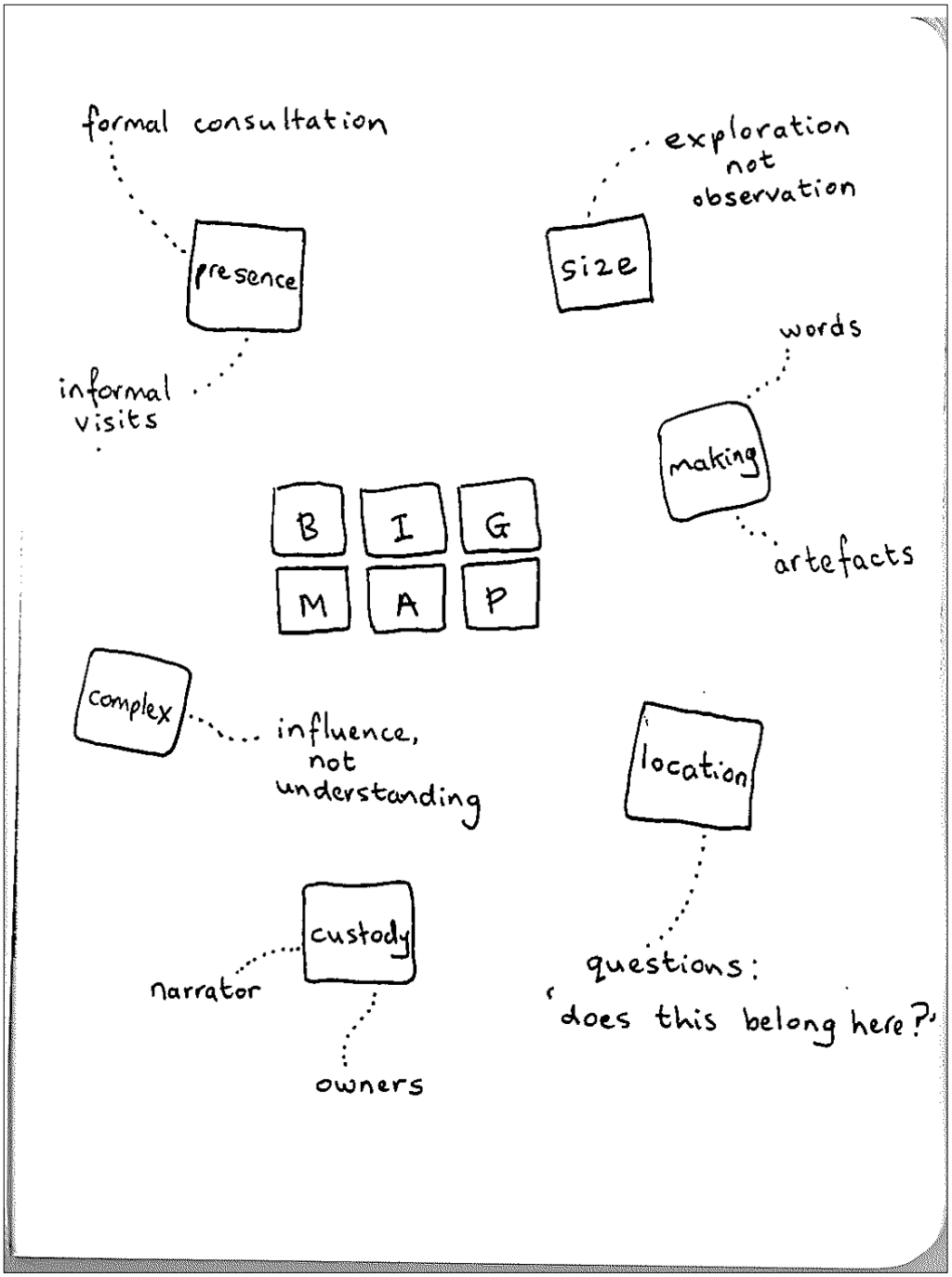


table to :- discuss
- meet
- develop
- talk
- listen
- make things


formal consultation
presence
informal visits
exploration not observation
size
words
making
artefacts
B I G
M A P
complex
influence, not understanding
location
questions:
does this belong here?
custody
narrator
owners

Appendix D: Examples of surveys

These examples include examples of surveys, completed surveys and survey results recorded in excel.

GK

QUESTIONNAIRE

Project title: Design Disruption
Researcher: Mark Green
Participants:

Please complete the following sentences:

Before I came here I was ... OPEN MINDED

The creative tasks made me feel ... CHALLENGED

During the session I thought about ... MY CHILDREN + INFLUENCES ON THEM (inc. mine)

The objects we made ... Interesting + insightful

The worst thing was ... Pace - but slow at time

The best thing was ... All the activities

And another thing, ... Would come again ....

Thank you

QUESTIONNAIRE

Project title: Design Disruption
Researcher: Mark Green
Participants: Ryder Architecture

Please complete the following sentences:

Before I came here I was ...

completely unsure of what to expect.

The creative tasks made me feel ...

interested

During the session I thought about ...

time constraints

The objects we made ...

decent

The worst thing was ...

lack of printers for imagery

The best thing was ...

something different

And another thing, ...

would do this again

Thank you

QUESTIONNAIRE

Project title: Design Disruption
Researcher: Mark Green
Participants: Northumbria University (17/10/14)

Please complete the following sentences:

Before I came here I was ... slightly sceptical

The creative tasks made me feel ... young again

During the session I thought about ... fun (and what techniques I could use in my teaching

The objects we made ... were fun + non threatening collaborative.

The worst thing was ... not knowing what I was to do at the start of the session.

The best thing was ... having fun + enjoying the session (+ no powerpoint!!)

And another thing, ... Thank you both + good luck with your PhD studies!

Thank you

GT

QUESTIONNAIRE (3 PARTS)

Project title: Design Disruption
Researcher: Mark Green
Organisation:
Date: 6 February 2015

PART 1

Name of participant: [redacted]

Job title: Recruitment Manager

No. of years with the organisation: 5 ½

Email address: [redacted]

PART 2

Please complete the following sentences:

Before I came here I was ... unsure what the day would hold

The creative tasks made me feel ... involved, valued as part of Greggs

During the session I thought about ... other peoples' journeys within the business

The things we made ... represent life at Greggs

The worst thing was ... that I couldn't think of anything to say here....

The best thing was ... that I couldn't write anything above!

And another thing. ... that was good was that although we didn't all know each other at the start of the day, we've all come to realise we are all Greggs people, and all part of a big happy family.

PART 3

Please indicate, by ticking the relevant box, how much you agree with each of the following statements on a scale of 1-10, with 1 being "do not agree at all" and 10 being "completely agree":

	1	2	3	4	5	6	7	8	9	10
Part of my job is to be creative.						✓				
The things we made could be developed further.									✓	
Design helps to create value within the organisation.								✓		
I am now more confident about making things.					✓					
It is difficult to see how these type of activities will help the organisation.					✓					
The things we made are unlikely to be referred to again in the future.				✓						
Outside of wor' I have creative hobbies.	✓									
I have not acquired any new skills today.		✓								
Creativity is not important to the success of the organisation.		✓								
The objects are only relevant to those who made them.	✓									
Making things helped me to develop some new ideas.										✓
The organisation should dedicate more resources to creative activities.								✓		
Part of my education was in creative subjects.	✓									
Similar outcomes could have been achieved just by talking.	✓									
The things we made could be shown to other people in the organisation.										✓

6

QUESTIONNAIRE (3 PARTS)

Project title: Design Disruption
Researcher: Mark Green
Organisation: Sunderland City Council
Date: 2 February 2015

PART 1

Name of participant: [redacted]

Job title: Service Manager

No. of years with the organisation: 20

Email address: [redacted]

PART 2

Please complete the following sentences:

Before I came here I was ... curious about the task

The creative tasks made me feel ... happy

During the session I thought about ... applying learning back at the ranch

The objects we made ... weren't finished!

The worst thing was ... lack of time

The best thing was ... stimulating my thinking

And another thing, ... I will think about how I can encourage creativity in our service

PART 3

Please indicate, by ticking the relevant box, how much you agree with each of the following sentences on a scale of 1-10, with 1 being "do not agree at all" and 10 being "completely agree":

	1	2	3	4	5	6	7	8	9	10
The objects we made are unlikely to be used again.										✓
I have previously been educated in creative subjects.										✓
Creativity is not important to the success of the organisation.	✓									
The objects need further development.							✓			
I feel more confident about making things.					✓					
I am not encouraged to take risks.					✓					
The objects will be shared with others.					✓					
Part of my job is to be creative.										✓
Design helps to create value within the organisation.										✓
The objects are only relevant to those who made them.				✓						
I do not have the time and space to develop ideas.			✓							
I feel valued by the organisation.					✓					

Thank you

Participant	Job title	Years with org.	Before I came here I was	The creative tasks made me feel	During the session I thought about	The things we made	The worst thing was	The best thing was	And another thing,	Part of my job is to be creative.
G001	Retail controllable cost manager	7	unsure what the day was about or had in store for me	energised, youthful, thoughtful	my time at Greggs and that it's really quite a good place to work!	are thought provoking and really quite creative!	the long silences (background music might have helped?)	laughing	getting messy	6
G002	Head of reward and policy	13	really looking forward to it!	energised. Happy. It was a good way to think differently	how we can bring this to life in Greggs for all our people. Make things more accessible, fun for people	were awesome	the picture I drew of Karen	the great vibe in the room, the energy, enthusiasm - the final product	I really want to thank you Mark for all your help with this - I genuinely believe this is going to make a big impact.	8

The things we made could be developed further	Design helps to create value within the organisation	I am now more confident about making things	It is difficult to see how these type of activities will help the organisation.	The things we made are unlikely to be referred to again in the future.	Outside of work I have creative hobbies.	I have not acquired any new skills today.	Creativity is not important to the success of the organisation.	The objects are only relevant to those who made them.	Making things helped me to develop some new ideas.	The organisation should dedicate more resources to creative activities.
10	10	8	2	6	9	3	1	1	7	10
10	7	9	2	2	5	2	1	1	9	10

Appendix E: Examples of transcripts of interviews with participants

Company A example:

Audio File Name: **xxxxxxxxxx 171114**
Date: **10th February 2016**
Comments:
Duration: **31:47**

KEY:

Cannot decipher = (unclear + time code)

Sounds like = [s.l + time code]

I: = Interviewer (Interviewer in bold)

R: = Respondent.

I: **Your colleague in the west.**

R: Oh, are you mean xxxxxxx

I: **Yeah.**

R: When I came back, because one of the remits of my job is policy, and looking after policy, and our policies at the minute are very dull, do you know what I mean? They are very…. they have been here such a long time. I only took over the area of policy about six months and one of the things I want to get things a little more, like, friendly for people, that they look a bit snazzier. So we are going to redo the company handbook, we are going to redo a couple of things, and we are going to try and do a design workshop based on what we do.

I: **Okay, well if you ask me to come in (over-speaking 0:00:47.3).**

R: Oh, well, Xxxxxx is going to try and do it, so there's a girl who works with me called Xxxxxx, and I have kind of raved about what you guys did. I was going, "Yeah, we did that and we did this, and we have to draw xxxxxxxx." What we are going to do, we are going to try it – not on the scale of what we did with you – but we have got a couple of hours, and what we are just trying to do is just try and get people's creative juices flowing. Xxxxxx's sorting it for the first week in December. We are just going to get about ten people in a room and just start to try and get them to think about what looks good and what catches your eye and what's really interesting, and have a few magazines and cut out bits and 'why do you think that looks good?' So we're going to try and do it from that point of view.

I: **Fantastic.**

R: So that's all down to you. So if it goes tits up, it's your fault, isn't it? [Laughter].

I: **Well, that's really interesting. That's a good thing, I think. Maybe these things can't really go tits up because there isn't really a –**

R: A right or wrong.

I: - downside, maybe. Okay.

R: We just wanted…. Because what I really liked about your day – maybe I shouldn't speak now because you might want to…

I: It doesn't matter, we can… And I should say, it is not really like a proper interview this; I am more interested in people just telling stories.

R: Yeah. So what I liked about your day was the fact that I got there, and I don't think I am a very creative person. I got there and I was just like, "Bloody hell, I can't believe I am going to do this, this is going to be a right pain." And by the end of the day I loved it, and it was just a bit like, "Oh my god, that's really good," because it did make you stand in the room and realise how creative you are without having to be good at drawing.

I: A fine artist?

R: Yeah. It was just like, "Actually we are quite creative – that's really good." And I remember vividly the one that xxxxxx and the guys did about making the little hotel thing for people to sleep in.

I: So which one did you group do?

R: We did the… on the train, when you come on the train and you have a little drinks….

I: So you were in Ian's group, weren't you?

R: I was in Ian's group, yeah.

I: I only know that because xxxxx and I were talking about it the other day…

R: Yeah, so we made a little drinks dispenser and little Kit-Kat things on the train.

I: Okay. Well, I've just touched, because there isn't really any order for this. I will just touch on that. That drinks thing, we were really interested in it afterwards, in that it was very different from the other ones, in that it was very finished. The drinks one looked like that, sort of, test you can do where you squint your eyes and you, sort of, look through your eyelashes at things and it looks finished – if you do that, if you screwed your eyes up.

We thought that was really interesting and funny as well, because the brief was just to make a prototype and in your group they kind of rushed to make this thing that was, you know, "Here's the finished object." And Ian, in his interview, talked about a childhood making Airfix kits and loving getting to the end of them, but it was very… It was like the thing had been closed down, the ideas had all been…. You have had your ideas, you'd worked on them, you'd made them into an object and said, "Here it is." Whereas the other groups were at very different stages. They were still saying, "Look here's loads of ideas and we don't really know what to do with them." It was a real contrast; I don't really know what it means, but it was quite interesting.

R: When I think about who was in the group, because there was a guy called Xxxxxx in our group as well, xxxxx, myself, I can't remember who the other

person was, which is terrible because my memory is really bad. But Xxxxxx is quite a complete-to-finisher. He likes things to be right and precise, and I am exactly the same. I'd rather have that finished and the model finished, even though that might not necessarily… I could not have… I have think it was partly more about our personalities as well, and like Ian has just said, when he was a kid and Airfix, and wanting things to be finished and right.

I: So how would you have felt…? Forget the rest of the group, how would you have felt…?

R: You are not recording…?

I: I am recording it.

R: Are you?

I: Yeah.

R: All right.

I: It doesn't matter if the screen goes off. How would you have felt if you hadn't finished, if it had been some strange ideas?

R: Hmm… [Pause]. I would have probably been all right, because of the context of the day. I probably would have been all right on it and just thought… But I wouldn't have been overly happy within myself because I don't like… It's really interesting, I was on my way into work this morning and I was thinking, 'God, I've got loads to do,' and I am going on holiday next week. I was thinking, 'I need to do that, I have to pick that up when I come back off holiday.' Then I just started thinking, 'Xxxxxx, you never not have a list; you will never not have it,' and this sounds really morbid but the day you don't have a list you will probably be dead. The day there isn't stuff that you need to count –

I: Or someone else will have to pick it up.

R: And someone else will just do it. So don't wish you didn't have a list because if you didn't have a list, you might not be here to do your list – do you know what I mean? It is one of my whole things, it drives my husband nuts as well – bananas in fact, that I just like things to be finished. He's the opposite of me; he can kind of… We are decorating the house at the minute and he is putting this panelling in the hall. He's been taking about three or four months and it's killing me. He's just going "Xxxxxx, if it takes until January, what's the problem with that?" And I am going, "Because I just want it finished." He is going, "But there are much more important things in life than me finishing that panelling, like does it matter?" And he is a real calming influence, and I'm not; I'm just a bit like, "But it's pissing me off and I need it finished." It is the way I am; I can't change it.

I: I can relate to it. Domestically, I can relate to it.

R: Yes. He's just so laid back and so, like, "It will get done," and, "I will do a piece a night." And he will stop and he will look and he will measure it, and he will look and he will go back, and it will take him two hours to do one bit, which is completely out of my character as well because I am 'do it, right, finish, move on, do it, right, finish, move on', in quite a lot of stuff. So I would have been fine if we hadn't it on that day probably, but internally I would have still been a little bit like "Ah, it's shame we didn't get it looking good."

I: So, have you ever done stuff like that before?

R: Like the design workshop thing?

I: Creative things, making things.

R: Not particularly, no. I don't really have… I never see myself as a creative type of person to make things. One, I don't really have the patience for it. Like I say, Alan, my other half, he's really into making things, like woodwork, and doing, and detail and things like… Whereas I don't think I have the patience for it. I am very much a doer, rather than like a… But then I will sometimes do things and go, "Oh, that looks all right." But I am more of a… do you know what I mean? I don't see myself as a creative type. I'm just more of a, like, doer.

I: Yeah, start to finish. Can you remember making things at school though?

R: I can and I have still got them in the loft, actually. Do you know, that now you have said that, that's really weird? Part of doing the house, we tidied up the loft; because my mum and dad moved in, I've got all the stuff from my mum and dad's old house in the loft because they didn't have one. S, I was sorting out the loft the other day and we have got boxes and boxes of my old school books, my sister's old school books, school uniforms, which, for whatever reason, I can't bear to throw out because it is just like… Boxes of… some marzipan, like, fruit shapes that I've made in Home Economics. Now they must be, well, I am 40, so they must be 30 years old, do you know what I mean?

I: Antiques.

R: So they are still there. There's a pencil case that I can remember making in Home Economics. I went to a private school so we made stuff, like weird stuff like this. It was all very teaching you how to sew and all that kind of rubbish. There's this pencil case, it's a long piece of cloth, and another bit you slot your pens in, so it is sewed down and it rolls out into a thing.

I: Oh yeah.

R: And it's blue, and I love it and in fact I thought about bringing it down. I thought that would be hilarious if I just got it out at work and just unrolled it.

I: You can buy these things now. They're cool.

R: Yeah. We have got this restaurant in Grasmere called the Jumble Rooms, which is lovely, and they put the cutlery in one. So they put the (unclear 0:10:01.3) and all that. So there's that up there. There was, like, a tortoise thing made out of different types of material in hexagonal shapes, I remembered making that. There's quite a lot of pictures that I have done that are up there – mine and my sister's. So they are still up there, which is quite strange. So when I was at school I did make quite a lot. I remember one thing I made with my dad actually, which was really good, that's probably not that creative, it was a 3D image of the solar system. And I remember my dad cutting a ballcock in two to stick it on to get Jupiter, and so I remember making this huge thing in the garage with my dad, sticking all these things on. And I got a distinction at school with it but my dad did most of it, but I was with him and we did it. I think it was my dad's fantasy as well to do I, but I was there and we made this 3D image with all the bits coming out. So I suppose when I say that I have done it in the past, more like at school.

I: What are your hobbies now, in adult life, what sort of things do you do outside of work?

R: I do a lot of sport, so I do a lot of running and swimming and keep fit. I've been swimming this morning, hence my eyes. We do a lot of walking; we have got a dog, so we go to the lakes probably every second weekend.

I: Very nice.

R: We do lots of walking, Alan's into that as well, so up on the fells. That probably fills my time, because I probably do sport every day, like an hour, an hour and a bit. So by the time you've done work and have done all of that…

I: I'm trying to get back into running at the moment, it's so hard.

R: So, that's probably it. I would see fitness and outdoors/lakes/walking – that's kind of the big thing that we like doing.

I: We haven't actually talked about what you do here, what your job is within Company A and what you did before you were at Company A, workwise.

R: So, currently I'm Head of Reward and Policies. I look after anything to do with remuneration or reward really. So, pay, all of the bonuses, all of the pay, profit-share, that kind of thing, there's save as you earn, reward schemes. I am involved in pensions. All of that side of things for the company and then Policy was something I got about six months ago so now I look after anything to do with Policy, which is probably not the most exciting thing.

I: Well, it can be, I suppose.

R: Exactly, yes, it's what you make of it. Hence why we are going to do this thing to try and change things and get this new style for policy. So that's what I do now. I have been here for 12 years, and I came into head office about six years ago, I used to work out in the field as a people manager for when we use to have what was called XXXXXXX, which some people…

I: Yes, I know that.

R: So I worked for the XXXXXXX, which I covered Inverness down to Sheffield, which was a huge patch, so to be in here for the last six years and not travel is quite lovely. Before that I was a teacher, I worked as a secondary school teacher up in Bedlington, a place called Bedlington.

I: I've got a Bedlington terrier.

R: Have you?

I: Yeah.

R: Oh, I do like Bedlington terriers, we've got a Border terrier. I worked up in Bedlington and I was there for five years. I was a geography teacher and then I was head of year. I looked after the Year 9s, until I realised that I couldn't stand the children and then had to leave. I couldn't stand the parents either. [Laughter]. Before that, I travelled for a year and went around, did the usual India, Australia and all that, with friends. And before that, the year I left university – I was down at Sheffield Uni – and the year I left university, I didn't go travelling straight away, I thought about being an accountant.

I: Okay.

R: So I got a job with what was then called Coopers & Lybrand (unclear 0:14:30.2), so I started training to be an accountant and then realised I hated it. I thought 'what are you doing?' And I was only doing it because it was what my sister did. I thought 'Sarah's doing it, she seems all right.' So I did it for a month and a half and thought 'this is the worst thing I have ever done in my life and I can't live my life like this'. So, I left and then a week later went out to Australia and met my friends and had a year, which was brilliant, much better than training to be an accountant.

I: I'm sure.

R: So, that's kind of like my….

I: So this session that you are going to run internally, what are you hoping to get out of that?

R: What I wanted to do… so when I came back from the day, I talked to Xxxxxx about it and said "Look it's a really good day to just make you think…"

I: So then this is just the interview with Xxxxxx restarting, after I've stopped it for no reason at all. Yeah, that's fine.

R: So the thing on the workshop that I did?

I: Yes.

R: So I came back and I said, "Just made you think a little bit differently." And one of the, I suppose, challenges we've got at the minute is try and get our policies looking a little bit better and our company handbook, and Roisin, who's the People Director, spent quite a lot of time with a company called Timpsons, you know the…?

I: Yes, shoe repair.

R: Shoe repair people. And they've got, probably not something I particularly like, but their company handbooks are very, very different to ours. They're very cartoon-like, and even I think that's too extreme, because it kind of makes people seem as if they're a bit thick. Because there's some pictures in there that are just a bit like "remember to smile at work" and a cartoon man smiling, which is alright but I do just think we're trying to find like the middle ground between that, in my view, and what we've got at the minute, which is pure script, wording. Like, you know, "you must be wearing your uniform correctly, you must do this, you must do that, you must do this."

I: Is it the middle ground or is it what fits right?

R: What fits right, yes, sorry, so what fits right – you're right. So we said, "Could you go away and just try and redo this handbook – the company handbook?" Well if it was just my brain and Xxxxxx's brain, all you get is our thoughts on it and you don't really get… Like I say, I don't feel I'm always that creative so you don't really get a perspective of what other people think looks good, and what some people think looks good I just think might not be that good or, you know.

I: Yes.

R: So what we want to do on the day is, like I say, just to get… we're going to get some other company handbooks, so I've got a friend who works at Google and we're going to contact them and get their… so we can have a look. If you can imagine, Google's will probably be online anyway but, you know, have a look at like the different styles. And we just want kind of to get… at the end of the day, what we want an outcome to be is people to let us know, show us what they would see our kind of look and feel for our handbook and our policies to be, so what do they like the look of? Do they like pictures? Do they like big wording? Do they like, you know what I mean?

I: Yes.

R: My view is just buy a load of magazines and have a little bit cut out – "Why do you like that bit? What's good about that bit? Why?" Do you know what I mean?

I: Yes.

R: And that's what we want to get at the end of it.

I: No that makes sense.

R: So what we've done is, Xxxxxx has invited about twelve people, because we know that some will not be able to make it, from a number of different kind of walks of the business. So we've got somebody who works out in the retail side, somebody who used to work in one of our shops, a [manufacturing] person, a couple of people from Head Office. If you just get a little bit of a mix of different views and ideas and what… So we're certainly not going by the end of the day have written a… or by the end of the… because it's only two hours we're doing, which may or may not be enough, but just timing wise. We're not going to have a new handbook written but what we will have is an understanding about what people think it creatively should look like, and it will be our people who have contributed.

I: Yes, and so what will happen to that stuff? Because you'll have a load of bits of paper –

R: Yes.

I: - and stuff…

R: Yes.

I: - all over the room.

R: Yes.

I: What's the next thing? What do you do with it after that?

R: Yes, so what the next thing is, what Xxxxxx is going to do, she's going to pull it together, and we've got an agency called xxxxxxxx who we use; they do… It is quite expensive at the time but they are going to… we're going to sit with them and say, "Right, this is what our people like, so this is the style."

I: Yes

R: And they're going to help to try and build a template of what the style of that handbook would look like, and then the next… So we'll have that, based on what our people have fed in.

I: Yes

R: And then the next steps will be Xxxxxx will, I suppose, refine the words that she will then drop in, because she'll have an idea of what people like the look of. Do they like it to be fairly, you know, in relaxed language?

I: So influence the text as well as the graphic look of it?

R: Yes, we want people to influence it all, in terms of how do you want it to read? What do you want it to…? Do you want it to read like a story or do you want it to read like it's an instruction? Or do you want it to read so it's…? Because it's meant… So, yes, so we want them to influence everything. We want to kind of like throw the one we've got out now and just say right, "Now, meant to be modern times, what do you want it to look like?" And it's all relative, but one of the other areas I look after is our employee opinion survey, so employee engagement, so it's a bit around as well what will engage our people? What will get them? What will make them want to stay? What will make them want to join us? And it's that whole thing around… Because your company handbook is one of the first things you'll see, and it's first impressions.

I: Yes.

R: And if people think that looks alright – "Oh they look like nice…" "Oh he's nice…" "That's quite a friendly body." You know, it's just (over-speaking 00:16:25)

I: Because do you have to…? I can remember been in organisations and in your induction you had to sit down and read it in your first week.

R: Yes.

I: While everyone was running around trying to arrange the rest of your induction.

R: Yes.

I: So it's quite a, you know, it's very upfront. At the beginning of that sort of journey for people.

R: Yes, absolutely. So, actually, what we sometimes do now, so our inductions are very, quite interactive now, so it's about two/three hours that first day, when you have that induction and all the company stuff…

I: Yes.

R: And sometimes we send the company handbook out with the contract, so actually this lands with people before they're even had a conversation to sit and go, "Oh, they're really nice there." So they get this fairly bland… that's still got our old CEO in, so it's not even got Xxxxxxxxx in; it's got Xxxxxx in. S it's that kind of, that's what we want to… So if you're sitting at home, you don't have to have somebody in front of you like spouting and going, "Oh, this is a lovely place." They can look at it and go, "Wow, that looks really nice," and…

I: Do it need to be easier to change then? If it's still got Xxxxxx in, does it need to be something where you can slot things in and out?

R: Well, there's an element that you could potentially do that now, so that's the other challenge we've had back, is, right, well, the front page, the left-hand page, is Xxxxxx xxxxxxxx – just change that and get 5,000 printed.

I: [Laughter].

R: There's a bit of me that struggles to do that because I'm thinking, well, we're so close to changing that bit, why change that when we're…? So I've stood my ground and said no.

I: Yes.

R: And nobody's shouted at me yet.

I: Are things like that – objects and documents – are they, do they, become sacrosanct in this organisation or in other organisations?

R: Yes, they do a little bit, mainly because… I mean, I suppose you've got two sides to it. One is people, one is some of the content of, let's say, that company handbook, there's stuff in there from our food safety guys, from our health and safety guys, and they can get a little bit… If you want to take something out or not have something in, they can be a little bit, 'well, no, that has to be in there because people have to have it', which is one side, but then the other side is that sometimes we do use them. It's not as a stick, but if you have a disciplinary, you have to use elements of that. So there's bits where people get precious about it because it's their functional area, but then there's also other bits from a kind of legislative legal, protecting us as a business, point of view, that we kind of have to be careful what we do with it and what we have in it.

I: Okay, that makes sense. And so are there any other areas of the business that are more creative than the bit you're in?

R: Yes. I mean, yes, there are. There is quite a bit more. I still think that even though I say I'm not creative, we still do quite a lot of creative stuff in my area. [Laughter].

I: Yes. Well tell me about that.

R: So we've just, so there's a couple of things that we have just done recently. So we've just launched a new employee recognition scheme, so it's called 'Superstar Service', which is all around… So we had to create the mechanism for that, so although it's not, I know it's not the fine art; there's still quite a lot of creativity around developing a system and developing a process and developing a logo for that and what that would look like. We've just done the employee opinion survey and again that's about how we get it out to our people and how we, I suppose, advertise and sell it, get people to do it. And a whole scheme called 'Your Ideas Matter' which is a mechanism for people to feed up through the business any of the ideas that they have.

So we currently run that, so it's out in shops and [manufacturing sites], and we get those all fed in so there's quite a lot of creative stuff, but I suppose that, what you see as the outwardly, if you take our shop development teams, so they're working on creating a new, or they always are working on, I suppose, refining and updating what the store format looks like, how it is, what the

experience is like for the customer. That, for me, I always kind of then think that's your stereotypical creative side of the business. Do you know what I mean?

I: The kind of wacky and…?

R: Yes, and they'll do this and they'll put a bike on the wall or they'll do this or do that, whereas other other stuff that we do, you still think, well it's creative, it's just not really out there as being that…

I: Yes,

R: It's just a different type –

I: Absolutely.

R: - of creativity, isn't it?

I: Absolutely. I suppose the type of creativity I'm interested in is when people physically make things as a way of moving things forward, so some of that took place in that workshop that you came along to.

R: Yes

I: And it sounds as though some of that's going to happen in your retailing workshop.

R: Yes, yes.

I: Why do you think that's different or why have you guys opted to do it in this workshop you're going to do here, rather than just sit around brainstorming or whatever you usually do in terms of creative process?

R: I think partly because when we had that day with you, one of the things that I think helps you with creativity is, from a personal level, is doing things. Do you know, like, actually using your hands and doing things, and having to look? So you had all those newspapers and magazines that were out, and I remember you kind of just had to look through, and you see little things and you go, "Oh, that's quite good. Oh yes, I remember seeing that." And then that sparks something else off in your head where, I don't know, you see a picture of a dog bowl or something and then it sparks something else off in your head, whereas if you just sat in a room with seven people going right, "Right, okay, we're going to recreate the company handbook; what do we want it to look like?" Immediately what people do is think about the current company handbook.

I: Yes

R: Because you said the words 'company handbook' so they'll think about that and they'll go, "Well, what we quite like about it now…" No, it's not what we like about it now, right, what we want to do is start with a blank sheet of paper. And I think if you just have things that trigger… Like, I find visuals just really help to then not just mean you focus on that thing but you'll see something there and go, "Bloody hell, I remember that. Oh I saw this thing and that was really good." And that kind of triggers it off.

I: Okay. That kind of makes sense.

R: That's what I'm hoping. I'm hoping it will be kind of some chain reaction and then everybody will bounce off each other and it will work that way.

I: Yes. I've probably got as much as we need for the interview for today. Can I ask a favour though? Would I be able to re-interview you after you've had this next workshop internally?

R: Yes, of course you can.

I: And would you be able to take some photos for me on that day?

R: Of that workshop?

I: Yes. It doesn't need to be of people – the faces don't need to be in it, but I'd be really interested in how you set the materials out –

R: Yes.

I: - photos of people with things in their hands, but also what you end up with at the end of the day.

R: Yes.

I: And maybe if I could interview you and your colleague who's running it with you?

R: Yes, Xxxxxx. Yes, of course.

I: Once you know what the dates are… I mean, I'll drop you an email about this but I'd really, really interested in finding out about what happened.

R: Yes, of course. I think it's on the 2nd December.

I: Oh, okay.

R: I'm pretty sure that's when we're doing it. I'm back from holidays on the Monday. I'm sure it's Monday 1st. It's the Tuesday I'm back from my holidays, so a week, two weeks' time.

I: I'll drop you an email probably tomorrow. Actually, I'll do it today – later today, just asking about whatever.

R: Yes, of course.

I: But that would be really helpful.

R: No problem.

I: Excellent. Okay. I think that's it. I've kind of covered everything and I'm really interested in this development plan. I think it's really exciting

R: So what are you exactly doing? What is it?

I: So my research is about these funny workshops that we're doing, and then we often end up intervening in the organisations after those. So it's a number of mainly third-sector organisations where we've gone on and worked with them for a period of years, and I'm trying to understand what

the value of this type of design approach is.

R: Right.

I: So it's kind of influenced by a bit by design activism, where people use design to make sort of protest objects and things, so it's not… A typical design process would have a sort of a period of thinking and then a period of acting and then a period of reflecting, and then thinking and acting and reflecting – this sort of iterative approach. But we tend not to do that; we tend to simply act and think about it later, with a view to people to making things and the focus being on… If design was two things – and this is only my description – I'd say it's making and thinking, and so design has gone a long way in the last ten or fifteen years, just down the thinking routes so actually it doesn't need to be about making anything. It can be design thinking or use a design approach.

R: Yes.

I: And that loses out this sort of fundamental of making. So our approach, myself and the rest of the gang, Paul, who you didn't meet on the day, who founded the group, we're really interested in 'well what do people learn from making things in an organisational context and how can that move personal and organisational issues forwards?' So I'm trying to understand, well, what's the value of these workshops and then what's the value of subsequent actions either by the organisations themselves, so like what you're doing.

R: Yes.

I: Or where we subsequently go and, say, intervene again, so what I'm probably going to do with Ian or what I'm doing with a couple of other organisations and trying to understand. One of the phrases we've sort of coined in the research is what's this knowledge fermenting what's coming out of it?

R: Yes.

I: What's this type of understanding and does it fit with…? There's a load of existing research about design knowledge, which is the stuff that designers pick up on through the design and making process. And we're trying to understand does that apply to people who don't see themselves as designers. Do they get similar sort of information out of it that they can then use?

R: Yes. Okay.

I: So I don't know if that makes sense.

R: Yes. No, no it does. No it does, it does.

I: Yes, so that's it, and I'll finish the interview now.

[End of Recording]

Ryder example:

Audio File Name: **xxxx – Ryder 031115**
Date: **29/06/16**
Comments:
Duration: **0:18:06.1**

KEY:

Cannot decipher = (unclear + time code)

Sounds like = [s.l + time code]

I: = Interviewer (Interviewer in bold)

R: = Respondent.

I: **That has started now. I'm interviewing Xxxxx on this recording. What I'm interested in talking about today is, obviously, the activity that you took part in, but I'm interested in establishing some background about you, so education, hobbies, what you've done in your career so far, and then spend a bit of time talking about what happened during the activity, and anything you've thought about since then. So, that's really it; nothing particularly difficult, I've brought along your little notebook, I thought it might be a reminder for you. I think that one's yours, isn't it?**

R: Yes.

I: **We can refer to that if we need to. So, to start with, I'm interested in your background, and I thought, maybe, your education would be a place to start; the sort of things you studied at school, and university, and why you did that?**

R: I'm from Edinburgh, so I went to school in Edinburgh and all the way throughout school, I was always interested in art, but really enjoyed maths, so we did Standard Grades up in Scotland, which is a slightly different system to England, so I did eight subjects in Standard Grade, which is your first few years of secondary school; I did a range of science subjects and arts subjects, and then, into Higher, refined that and did maths and physics, and I did art, but, to be honest, before I decided I wanted to do architecture, I wanted to do biology, which is a completely different thing altogether. So, I wanted to do a crash Higher in chemistry, but within a couple of months I realised it was not for me; I hadn't done Standard before, so it was really difficult, so I dropped that, also dropped biology and picked up a crash Advanced Higher in graphics communication, so I was doing, in my final year, in sixth year, I was doing advanced communication, advanced maths, and that was it, towards the end, because I had dropped the other subjects.

That was a really enjoyable year, actually, because it was very relaxed and, although advanced maths sounds really scary, I actually enjoyed it, in a weird way. My dad did maths at university, and my mum is a maths teacher, as well, so maths runs in the family, but my granddad was an architect, so that was

where the artistic side came from. I went to university up in Aberdeen, at Robert Gordon's, studying architecture, and I'm currently on my part-one placement, so I've done three years of university, and I'm now doing one year here, in Newcastle.

I: How is that going?

R: Yes, it's good, I'm really enjoying it. I didn't know what to expect, in my first office job, as such; I did a little bit of work experience, only a week, over at (unclear 0:03:22.2) office in Edinburgh, a really small office, in my fifth year at school, so that office was about ten people maximum, and here it's completely different, but after my first week experience, I came out of it thinking I didn't want to do architecture, I was put off by it a wee bit -

I: By your first week here?

R: No, the office in Edinburgh.

I: I see, so the smaller office?

R: Yes, the smaller office; it was just so small and it was just a completely different atmosphere to here, and I was put off by it. I think, also, I was so young, and I was quite a shy person when I was younger, so I didn't really enjoy it, didn't really get that stuck in, but then I don't really know what made me change my mind. I think it was my mum that made me change my mind, she was like, 'Xxxxx, I don't think you want to do biology, architecture is what you want to do', but then this has been really good, really enjoying it so far. I think I've learnt more in the past few months than I have in the past few years of university, which sounds like a bizarre thing to say, but I've learnt so much here, so it's going to be a good year, I think.

I: What do you do on a day-to-day basis; what does your job here consist of?

R: Well, my title was Design Assistant, so I've just been helping out with the various projects in the team, so I've worked on six different projects, and all of them are in different stages, so, for me, it has been really beneficial to see all the different stages and the processes that the architects go through, within those stages. So, I've mainly been working on stage three and stage four, on construction stages, so putting together detailed drawings and plans, in sections, elevations, which I thought I would find really boring, but I haven't, which is quite strange. I think, if I carry on doing it for the whole year, I might get a bit bored of it, without doing something a little bit more design-based, but so far it has been fine. We've also had a couple of bids, which have been really good to get involved with, so that's a little bit more creative, more Photoshop based work, so that was quite good, but the majority is on [s.I rev it 0:05:40.3].

I: Is it all digital stuff that you do?

R: All digital stuff, yes, all on the computer. I think a couple of projects coming up will be more concept stage, so I'll hopefully get a bit more design input there, but I'm quite happy with what I'm doing at the moment.

I: Do you not see the digital stuff that's being designed?

R: Not so much, because you start out with pen and paper, and you're sketching out concept ideas, and then you take that into digital and refine it, so you're

designing the details, I guess, on digital, but the overall concept is more paper; that's how I see it, anyway.

I: Let's move onto talking about the task. You were one of the people who were chosen, maybe, to get one of these boxes, and there was a brief inside the box, which was asking to respond to a statement; the statement was about whether or not an architect's plan should become finished, whatever that means, and it asked you to make a physical response to that statement, using the materials in the box. I'm interested in what your reaction was, at the time, to the brief – the statement and the instructions – what you felt when you read that, and looked in the box?

R: Confused, I would say; it took me a while to get the quote in my head, and understand it a wee bit more. At first, I was daunted by it, because I was like, I've only been here a couple of months, I have no idea what this is all about, but I spoke to people in the team about it, and we had a bit of a discussion about it, which was quite interesting, to see other people's inputs. Yes, it was quite interesting; I'd never really done anything like that before. Initially, I thought, because the quote … what was the quote again? I can't remember what the quote was.

I: It was, 'the architect's plan exists in digital, written, etcetera, and whether or not it should ever become finished?'. It was this idea that it shouldn't become finished.

R: I think, initially, I thought that the quote was wrong, and then I went back and forth, maybe it's right, maybe it's wrong, but I think the final thing that I produced was in reaction to thinking that the quote was inaccurate. Should I go into detail about what I did?

I: Sorry?

R: Should I go into detail about what I did?

I: Yes, I'm interested in your reaction and then what you made, and why you made it, I suppose?

R: I had an initial idea, I can't remember what it was, but the final thing that I ended up doing was, basically, I took all of the materials out of the box, looked at them and thought, well, I don't agree with this statement, I don't think that you need to have … earlier, I was trying to remember my thought process, but I can't remember exactly.

I: I think most of it is in here.

R: I ended up, basically, manipulating all of the materials, so they no longer did the function that they were set out to do. So, for example, the polystyrene balls, I cut them up so they no longer [s.I bulged 0:09:18.4].

I: The statement was very much suggesting that there was some form of compromise, in things having to be represented as being finished, and I think, going from the book, your view was that they're not compromised by that, so I think you were entirely at odds with the statement, really.

R: Yes, so I was thinking that your initial idea is always manipulated, and so your idea in your head isn't always what comes out on paper, or isn't always the final product, because it has been manipulated so much, so that is what I did with

the materials; I manipulated them, so they no longer were what they were.

I: How did you feel about making the things and breaking them, in your case? Did you enjoy it, or was it a bit of a chore, this making aspect of it?

R: I think I enjoyed it. At first I was a little bit scared, because I didn't know what to do, but then, once I had the idea in my head, I quite enjoyed getting into it and producing what I produced; it was a quite a nice break from the computer, it was quite nice to do something a little bit more creative. I was also interested to discuss with everyone else, what they did, and I had a little peak in all the other boxes, to see what everyone else had; it was quite interesting but no, I enjoyed it.

I: That was going to be my next question, actually, in terms of whether you, during the week of the activity, discussed it with other people; other people who were also having to make things, or just other colleagues, maybe people who were sitting near you?

R: I discussed it with one of the other students here, Patrick, he was doing it as well, and so we were talking about what we were thinking, but the only other people that I spoke to were people on my team; I didn't speak to anyone else who was doing it.

I: What did your team think about it?

R: Some of them were just confused; they didn't sit down and think about it too much, but their initial thing was just, 'what is this, I don't understand?'. A couple of other people, one guy in particular, got very into it and came up with a lot of very abstract ideas -

I: Did he have a box as well?

R: No, he didn't; he had a lot of very abstract ideas, but I can't remember what. He always said that, at university, he did the opposite of what everybody else did, so I think his initial thing was just to do something completely random and very abstract, which I didn't really … my mind doesn't really work like that, so I (unclear 0:12:16.0) work was talking about that; I think everyone found it quite intriguing, but I think everyone was a little bit standoffish, and not really sure.

I: How did you feel towards the end of the week, when you'd, maybe, finished the task, or at least done the task, and you were handing the thing back?

R: I feel like I cheated a little bit, because I didn't really feel like I made something; I feel like I broke everything, whereas everyone had created a thing, I just broke everything and put it back in the box. I feel like it was cheating, a wee bit, but I don't know; I don't know if I'm happy with what I did, because, from the start, I wasn't sure, but then I actually managed to produce something that I was relatively pleased with.

I: Moving on from that week, I'm interested in any thoughts you might have had since then, or any thoughts you have now, having the opportunity, whilst we're discussing, to reflect on this? I can help you a little bit, by posing a couple of questions into that. So, my first question would be, you have seen from the emails flying around that the intention is to exhibit this stuff; they're going to be recreated, the books, and photographs, are going to be recreated on some big boards, and they're

going to be displayed in the atrium here, and so your colleagues and clients, who knows, will have a look at them, and maybe comment on them. I wondered how you felt about that?

R: I don't know, I wouldn't mind people seeing it, but I don't know how I feel about people seeing my name next to it, I don't know why. It's such an abstract thing, I think people might, not necessarily judge you, but they would question you about it afterwards. I don't know; I don't know if I mind or not.

I: Would you welcome being questioned about it? What would you say?

R: Probably not. I don't know.

I: That's alright. Another question, to help reflect on the thing, is that sort of activity, that you engaged with in making, or breaking, the things, taking photos and filling out your notebook, that sort of activity; how does that fit, if at all, with your current practice, your current job here? So, the other things you do, on a day-to-day basis, how does this sort of activity fit, or not, with those sorts of things?

R: I wouldn't really say it is similar to what we do, well, not to what I do anyway, because I do the more … a lot of Revit, drawing-based work, so it's not as creative, in the same way that the activity was, so it's very different; it doesn't really fit in, but then, when, for example, I'm working on the bid, I had a little bit more of a creative input, so that's more similar to the bid work. So, when it's at the concept stage, I'd say it's more relevant, but the work that I'm doing at the moment is not as relevant.

I: That's probably all of my questions, actually, unless you've got any questions for me about it?

R: I don't know. I think everyone's very interested to see why you're doing it, and what your … is it a thesis that you're writing?

I: Yes. I'm interested in how these types of interventions, these provocative interventions, where you get people to make things, how they impact on organisations, how they might change little bits of process.

R: That'd be interesting, to see the final thing.

I: Yes, so this is still quite an early stage, so it's difficult to say, really, other than the responses were very varied, in a positive way, so there were lots of extremes. I'd say yours was quite an extreme response to it, so people did very, very different things with it, and that's interesting, trying to unpick what that might mean; how people create time to address comment from slightly ambiguous tasks, or things where there's no obvious reward, so just trying to unpick a bit of that.

R: Cool.

[End of Recording]

Appendix F: Examples of transcripts of interviews with key participants

Company A example:

Audio File Name: **xxxxxxxx 201015**
Date: **15th February 2016**
Comments:
Duration: **01:21:19**

KEY:

Cannot decipher = (unclear + time code)

Sounds like = [s.l + time code]

I: = Interviewer (Interviewer in bold)

R: = Respondent

I: **Okay, so that looks like it's recording, that's good. I'll just pop it there. So I thought today would be useful to have a reflective session where we have a bit of a think back about the whole project, otherwise it's going to be so long ago in the mist of time that I just don't think either of us will really remember all of the things. So I've got a variety of different sorts of questions. I think they're in logical order though so if we just start plodding through those, I think that's probably the best way. My first series of questions are really about your role in these activities that have taken place. I'm interested in how you would describe your role at each of the different stages and trying to think about what those stages might be.**

My thoughts were the stages were as follows, and you might have something to say about this. But I thought there was a commissioning stage which was at the beginning when I submitted proposals and what not that led up to the next phase which was the actual initial map making workshop that took place in February. Then there was a, I've called it installation but that was the phase where we'd finished making the map and I was coming here installing and we were thinking about how it might be presented to other people, so installation. Then consultation, which is the phase where lots of people came to see it and then I don't know the right phrase for the last bit but the bit where you had to bring it all together and produce this handbook.

R: The hard work?

I: **Yes, the hard work or the easy bit, who knows. So I thought those were maybe the obvious phases and it might be that in talking other bits come out of that but I think those were the headline ones. So really, if we just go through those in a logical order, just describing your role as you see it now, maybe as you've described it to people here at those various stages, so really start at the beginning when the proposals were flying around and you were deciding what to do, whether to take this approach or not. So I don't know how you see your role at that stage.**

R: Yes. I suppose to start with the whole objective around reviewing the handbook was mine to do with however I saw fit really and relatively new into this role as well. I suppose it was Xxxxx xxxxxx's input, my manager, who said, "Actually, perhaps we can do this in a slightly different way. Why don't you have a chat with Mark and refer back to the session that she'd been involved in?" I think that light bulb moment for her was certainly a catalyst to look at this differently. At that point I was probably thinking, "Well how will that help?" not having had that exposure that Xxxxx had had because my approach would have been to get a group of people in a room, divvy up some of the responsibilities and probably do a review of what we had rather than a blank sheet of paper, let's start again.

So that was probably really early stages and then we started to have the discussions. If I'm really honest, for quite some time, and you'll have picked this up from our sessions anyway, I can remember, "How is this going to work?" I think, to start with, there was a bit of you can get some great stuff out of this for your research and I then kept saying, "Well actually I've got to get some deliverables out of this because whilst that would be a great exercise and really insightful and give us other stuff, what I need is something tangible at the end of it." I think that was always one of my concerns right from the start. My role in that at that point was to make sure we got that and we didn't go off on a bit of a journey to something else that might have been very interesting but not actually give us something that was meaningful for the business really, so that it had credibility, when I talk about what we've done, that we had something to show for it.

I think the second part of my role with that would be making sure it worked and gave me or the business those deliverables really. So it was that how does what we do turn into something but also it had to work, was probably I needed to make sure that happened. Then pulling together the group of people to...I suppose we'll continue to talk about the commissioning. I think there was quite a bit of toing and froing at that stage when I think you could see how it could give us something different probably but I was still in the how does that create a document, effectively, which is what it is.

I: I think there were three iterations of the proposal document.

R: There was, yes.

I: Yes. There was quite a big change between the first one and the last one.

R: There was, yes, to make sure it, like I say really my role was making sure it was something meaningful that we could actually use at the end of it. If we got other stuff out of it along the way then great, that was an added bonus but that wasn't the purpose from my perspective and why we were doing what we were doing.

I: Yes, okay. Well let's move on to the big day, the day in February when we made the map. There was a little bit of prep before that as well, which I think was to do with choosing people. We also had one exercise that was prior to that, so we were making those diaries. So there's a little bit of prep and that went along with choosing and preparing the people, but perhaps if you talk about your role in that.

R: Yes. So I think you hit the nail on the head, it was about making sure we had the right people in the room and they were carefully selected and I suppose criteria is maybe a bit too strong a word but what I was looking for were people that would actually contribute on the day and not be a passenger in the whole

thing, that I felt would be confident in getting involved and that would have I suppose the little bit of bravery to do something quite different to what we would normally do or perhaps to what people would expect when I'd invited them along to start getting involved in reviewing the handbook. It also gave an opportunity for some people that had been seen to be people that are developing in our business to come together in a cross functional environment. So there were a few people that were lifted off one of our development programmes.

Then also I'd listed out which functions needed to have some kind of input so there was a variety of people that represented their function because they'd be people that had a vested interest in what those outputs were. There was probably also a couple of cynics in that group who I thought we might want to get in the project early on so that if they heard about what was happening, they could be the people that might, in a room, be quite critical of taking a different approach but by very much being part of it, I put the lid on that one really I suppose. So there was quite a lot of thought and a little bit of strategy behind the scenes about getting the right people in the room for their benefit but also for mine.

I: How did you see your role on the day because there was quite a lot going on in the day?

R: Yes. I think the day itself I found quite difficult because I almost had the luxury of knowing all the work that had gone on in terms of the commissioning so I knew what the outputs, not specifically but broadly what they needed to be or what we'd talked about. So I think on the day itself I very much had that in my mind so didn't always feel I could just throw myself into it and go with the ride. I always had the thought, "Yes, well that's fine but we need to think about this." So I was quite conscious not to influence too much of what was discussed or said because I needed to make sure it was really natural from the rest of the group rather than...I think in hindsight, I don't know whether I should have had more of a facilitating type role on the day, to step back a bit further from it. I don't know.

I: You should have been less of a facilitator do you think or you mean less of a participant?

R: Less of a participant because I think there was too much I suppose to lose so I just was very conscious not to influence another thought process because of what I thought it should look like. To let go of all of that, because it was my project, my objective, was quite difficult to leave that at the door and still get stuck in in a really natural way.

I: Yes. There were a couple of moments when I think you and Xxxxx stepped out of being participants and maybe into the facilitator role. There was a bit of friction about how the road was going to be done. The roles changed I think at that point but then it went back a bit.

R: It went back again, yes. I mean it wasn't really difficult and I felt uncomfortable or anything like that but it was that taking the hat on, taking the hat off. It was which one was I, yes.

I: Okay. So that phase pretty much finishes at 4 o'clock on that day and then people go home. Then I think we have a chat, you go home and then it enters this new phase. What did you think about your role at that point, I

suppose immediately post the session? It took a while, it took a month or so for us to get everything in and work out what was happening.

R: Yes. I think at the end of the day I still felt like, "Oh my God, how is this going to provide something that I can work with?" I think that's the immediate reaction of the day was, "Oh my God, what just happened? What have we got at the end of it?" I could see some of it coming together but I had very much a sense of there's an awful lot more still to do. At that point we hadn't discussed what the next phase was. We had kind of left it in a let's have this day and see what happens, which was probably, "Really, Mark? Can we not just plan this? Can we not get to that?" whereas you were, "Let's see what happens and then we'll take it from there," which I think, on reflection, was the right thing to do because how people approached it on the day itself I think informed those sessions later. But I certainly immediately came away going, "God, I'm not quite sure how all this stuff on this great big piece of art is going to give us what I need." So that was my immediate response.

Then I think the following weeks were around keeping the group that had attended engaged because there was a bit around, "Okay, I need to say something to this group around obviously the usual thanks and input," but I needed to be able to tell them what was happening next with it because they were now part of this, they weren't a turn up for the day, go away and never hear anymore about it. So that was when I started to get them to consider who else might you want to share your experiences with. I think that was before we'd agreed or discussed what that next phase might be like. So I got them thinking about that at that stage while we were in that month period of what are we doing. So I think then I was led quite a bit by you actually at that stage. I think you came up with a great session plan.

We talked through that in quite a bit of detail around how we could bring people up to the room and get people involved and get them to contribute to the map in a different way to the day itself but just as a snap shot of what actually happened. So really grateful for your support during that because I wasn't sure how we were going to make that link back into the business and display what we'd done and continue to get contribution. But that was hugely helpful that quite structured approach and let's get this group in and that group. I worked through who needed to come. So again, it was the people that had attended and those functions that again would have some input or influence or interest in what we do content wise.

I: In relation to how we set the room up, as well as the obvious four or five stations that they were going to go to, there were a few prompts and questions. We used some words to get people thinking about things. How do you see your role in relation to developing those maybe?

R: I suppose that was through our discussions really was how we did it, just to make sure that the language that was being used people could relate to at Company A, that it wasn't too abstract, that it was nice and simple. Whether they were there on the day or not, they could relate to it. Some of it was quite stretching for a lot of people because it is a little bit abstract, some of the thoughts, this journey real or imagined. I think you hadn't spent time with a variety of people in the business, we don't spend a lot of time in Company A thinking about the imagined world. It's the here, now, today, tomorrow, 12 months' time. We're quite a clear plan and don't necessarily have that culture really of wandering off to the imagined world.

I: Moving it forward, so that took a month, maybe five or six weeks and then it was almost a handover. I think I popped in with xxxxx, my supervisor, the day before you were going to do the first session, maybe the day you'd done the first session.

R: Yes, we'd already done the first session. Yes, that's right.

I: I think that period took maybe longer than either of us had anticipated in that I think we thought it was going to be about four weeks and actually it was about two and a half months or something.

R: It was, yes.

I: I just wondered how you'd describe your role or roles maybe during that period because I know that you supervised or whatever, some of the...

R: Yes.

I: I know that other people did as well so perhaps you could tell me about that.

R: I think I certainly, again, had that whole view about who needed to see it or who we'd like to see it so that we can get some thoughts on what we had done. That was two-fold. One was from a who else do we need some information from as part of this guide book but also who might benefit from seeing this as a way of working, regardless of whether they're interested in the handbook or not. So I worked through that and had a chat with Xxxxx about groups that he felt, again from a developmental point of view, might be worthwhile people seeing. It did grow a little bit, not arms and legs, that's too far, but people would see it and say, "I'd quite like to bring such a body," and that was fine. But what I did, rather than making a big, "Wow, we've got this thing that's happening for four weeks, get your teams here," because we are a remotely managed business so yes, we've got lots of people in head office functions over at innovate but we've got people all around the country.

So the reason those two and a half months took a longer period was there wasn't masses of urgency about getting the guidebook out and ready, it wasn't the business will stop. So it had to be prioritised amongst all of that. Then it was slotting in with meetings that were happening. So I think I said to you before, there were key meetings that would happen here which I knew about that I could say, "Right, I'll speak to the person that chairs that or that runs that group or manages that team to say, "Look, this is what I've been doing. Will you come along?"" So there was a bit of sales pitch I suppose in terms of getting an agenda item for a 45-minute slot, which is quite chunky for us when you might be having an all day meeting about a variety of things and as a group you might not get together for a couple of months.

I: So how did you sell it? How did you describe it to those people? I'm thinking not necessarily the teams where you'd already had a manager at the original session in February but teams who hadn't had anyone who'd maybe been involved.

R: So I think that was...I did a very brief written overview just on an email and said, "Look, this is what we've been doing, you might have heard about it. We're taking a slightly different approach." I linked it to the work that had been done with strategic leaders, so some of those things that might make people think,

"This might be interesting because it's clearly been thought about." I don't want to blow my own trumpet too much but, from the role I did previously, I've got a fairly strong network out in the regions and in some of the operational teams so I think that when people would see something from the south they might go, "Actually, Xxxxx doesn't talk nonsense," or, "This might be interesting because it's something Xxxxx is working on," a bit of colleague support as well around, "Come and support me, what I'm doing."

Yes, so that's probably the approach and just talking to people about it when I had the opportunity and then when groups did attend say, "Look, is there anybody else that you think needs to come and have a look that might be interested in this?" and just that kind of networking really. But it wasn't a big thing across the whole business. I didn't intend it to be that because it isn't front page business plan. I think that's something I always have to remember with this is it's a piece of work that we've done in a different way but it wasn't that kind of front page stuff. So there will be lots of people you can talk to in the business that won't even have a clue that this piece of work has gone on. When the booklet eventually turns up they'll go, "Oh yes, that's nice," and the world moves on. That's the nature of Company A really.

I: **What about during this period, going back to you facilitating the sessions. In one of our earlier, it might not have been the entry but I think it was an informal chat that we had that I recorded in my journal, I think one of the comments you made was that you'd had to change a few things about how the sessions were run. I wonder if you could relate that to describing this role that you played, or maybe how that might have been a role that you might have played in maybe changing some of the things, how that came about and how you'd maybe describe that.**

R: I'm trying to think what I changed, Mark, it's been that long. I ended up into a bit of a robot mode towards the end of some of the sessions with the way it worked but...

I: **I mean I don't know because I didn't sit in on any. We recorded them only really by someone taking some photos, people filling in these forms but I don't know what sort of language you used.**

R: I used a lot of what was up on the wall so certainly introducing the session, people came round and found their own space in the room. I gave a very brief overview about what we were doing from a handbook perspective, why it was important we reviewed it and that we were hoping to take a bit of a different approach to the development of it on the back of moving forward in the way we approach things in the business and strategically, etc. So that was me giving that introduction and very much just talking about that journey round the room really. We got everyone together. We worked with Mark. I didn't read it out but it was kind of scripted and it was done in that way so that if people did go up, the session almost didn't need facilitating so I shortened the processes that we went through on the day itself because as the sessions went on I got the impression people just wanted to get stuck in.

Actually that's interesting but not necessarily interesting if you're there looking at the map and contributing on the day. It's like fine. So probably more time was spent on actually making stuff and spending time reviewing it and as the map got bigger and there was more content, it was taking a lot longer for people to get round it because people didn't want to be rushed over reading some of what was on there and what people had made. People would ask questions about,

"Xxxxx, what's this?" and sometimes I was able to describe it because I'd been there when the person had made it and then other times I couldn't because I wasn't, but I very much followed that structure. Then the session with the post-it notes after everyone had had an opportunity to make it...actually, my role in that was probably encouraging people to pick something up and have a go. There was lots of standing around going, "Well I can't make anything for toffee. I can't draw anything," so I brought some of my own examples of I felt similar on the day actually.

Then by the end of it we were having to be reigned in because we were taking too long. Just that supportive, "Why don't you have a go?" or, "What is it you're thinking about making and can I help?" I was showing people things on the map that maybe people had done that had been really simple or somebody felt that they couldn't make something but they just stuck something on a piece of paper. As a last resort, I said, "Well what about writing something on the map?" Actually, there wasn't that many people that we got to that stage with, with that encouragement of mucking in really. Some people buddied up together and said, "Let's make something together with somebody," so that they had that security but there was definite nervousness around picking stuff up off that table, like there was on the day itself.

Yes, then as a last resort people were writing stuff. So I positioned that so that in my mind I thought, "Right, okay, if all else fails, let people just write stuff but let's just see what we get if they make something," because I got to the point where I could see the content coming together and going, "This is great, I can get loads from this," and we do need to revisit the old handbook and make sure that everything is covered from the legal perspective and all that dull stuff but let's have some fun with this and get people doing something at work that's different to whatever they've just left at their desk. So I probably changed my role slightly and became this look what you can make with a few pipe cleaners.

I: Wonderful.

R: Yes, I became quite passionate really about doing something differently and how people could take it away and do something with their teams with this and don't be afraid of it. Towards the end it probably became less about handbook content, even though I needed to talk about that to bring it back to...

I: So what was it becoming about then at that point?

R: It was becoming about this was a totally different approach to something. I shared my experiences that I thought, "My God, how will we get something from this?" but almost sharing that the approach has really created something quite different.

I: Yes. Okay, we'll come back to some of those points, in particular the making of the things but just in that same period, I'm interested also in these other people who facilitated them. You don't need to tell me what they did, I've spoken to nearly all of my...but I'm interested in the role you played in asking them to become involved and also in I suppose getting them up to speed to do the sessions. Perhaps you could tell me how that came about.

R: Yes. That varied for the individual really. People were quite keen I did it, facilitated the session, which I was more than happy to do but that didn't always meet your diaries and what have you. I was really flexible to say, "Look, I'm

quite happy to come and do this," because I was interested in seeing how people...I wanted to see as many people as possible through the process as well. But where that wasn't possible I really just talked to the individual and said, "Really like this group to come along. I'm not around but would you be interested in facilitating it?" People are supportive in this business so they'd be, "Yes, what do you need me to do?" So for some we went up into the room and I went through, "This is what I talk about here," and people wrote copious notes.

But I said, "Look, do it as you see you want to do it. It's fine however," and others that were perhaps more confident with the people that they were bring up, they said, "Oh yes, it's fine. I was part of the day. I've been to the session, I know what I'm doing," either way really. So it was very much led by the individual and what they felt comfortable with doing.

I: Okay, that's helpful.

R: There was probably only about four people that did that, yes four, all of whom would have been on the day...

I: So xxxxx, Xxxxx...

R: Xxxxx and xxxxxx.

I: xxxxx, yes. Yes, I've seen all of them.

R: So it was only those four. So they had a really good understanding of the whole process because they'd been involved from the beginning.

I: Okay. So we'll leave that consultation period there because again, that's another phase...I imagine whereas with the other ones, one phase of activity stops so on the day of the making it ends and then the installation phase starts with us taking it to bits and then putting it back here. So the other phases are quite one ends and the next one starts but I'm guessing that the writing up of the new handbook might have started maybe before the consultation period ended, I don't know but perhaps tell me about that and then we can have a think about what your role might have been.

R: Yes. So that was about volume of information really as well and I felt if I didn't start it during that period something might get lost or it just wouldn't have been as fresh in my mind, although it was obviously all there as well. So I installed myself in the attic for a period of time and again, still didn't refer to the old handbook. That was something I said quite a bit but I was just really keen not to be blinkered in any way by it. So very much took the approach of what's this telling me. So I spent quite a lot of time reading it and looking at it and scratching my head and going, "What am I getting?" What I needed to do to make some sense of it was two key things really. One was the post-it notes. I took every comment and, in a very systems kind of way, put them in a spreadsheet and tried to identify key words so that I could get some sense of what had come through most frequently really and what was similar. You could have seen that from the pile of the post-it notes that were on top of each other but I felt I really needed to digest them.

That process of almost taking a post-it off the wall, reading it, putting it into a spreadsheet and categorising it, although very processed, helped absorb a lot of the information, rather than just looking at it on the wall and reading it and maybe rearranging the post-it notes probably says more about me than

anything else. So that was one exercise which just gave me a real sense of what was important and therefore I either needed to have a longer section or I needed to come earlier so that people saw it and didn't get bored by page five or whatever. So that definitely helped with almost the order of things. Then the map itself, I used very much to try and group things together and almost, they're not going to be called chapters but what are the chapters of this. Again, what's coming through? What isn't?

What are people most interested in at Company A to make sure that it wasn't just something that anybody could have written and come in and done a consultation piece about and go, "Well here's your handbook." It was very much around what matters to people at Company A. Then by just reading it and absorbing it, I just picked up the tone. The tone didn't come as a surprise, that whole relaxed, informal yet professional tone. I think we're so entrenched in within the business and it's quite often how we talk to our customers, that that didn't come as a surprise really, so that tone of voice.

I: So it was a tone of voice you recognised?

R: It was definitely, yes.

I: Is that a good thing?

R: I think it is. I think it was a good sense to say, "Okay, what we've got here with all these people that have seen it is I suppose the truth of what our voice should be." It bears no resemblance to the voice that's in the current or old handbook, which is a very formal document.

I: Okay.

R: So it almost reassured me that that brand voice is right internally as well because I'd always thought just because we talk about our customers in one way doesn't mean to say we talk to our employees in another all the same way but actually, again, reflecting on that, Company A as a business, we're very honest so if we talk to our customers in one way, it's actually highly likely we talk to our employees in a similar way so the two come together really.

I: So what you've just been talking about is reflecting and then maybe writing it up, using spreadsheets and things and grouping information together.

R: Yes. The post-it note stuff was very mechanical but pulling the stuff off the map, I just had A4 sheets of paper and started to go, "Okay, we've got a chapter over here I think on this. We've got a chapter on this," and just wrote out a few key words about what might go into that section and left those upstairs so that I could revisit that work and reflect on it.

I: Okay, that's interesting. I think one of our other informal chats that I've recorded is that you mentioned dealing with an external graphic design firm. I just mention them because dealing with them seems to be in this latter phase of writing up so I just wondered because that's another role potentially you've played in that latter part, I wonder if you could tell me about the role, not necessarily what went on, we can talk about that a bit later, but what that role was and how it fitted together with your writing up role really.

R: So I suppose that one is about...it felt quite a responsibility actually at that stage, more from there's been so many people that have had some input into this and I didn't want to let it go too much but needed obviously the graphic design team to pick it up but make sure they were picking up the right things from what we'd done so that it was authentic and true to what had actually happened and what was actually on there, rather than them taking it away, going, "Oh yes, that's all very well but we're going to go off and do some other stuff that's much more in line with the corporate brand, etc." So the discussions I had with them were in quite a bit of detail around the approach we'd taken because I felt they needed to understand both the investment in people's time and energy and why we hadn't just said, "Here's a whole load of text, can you turn it into a corporate brochure for us?"

I didn't manage to get the team to come and see it, which, to this day, I'm probably...well they've done a good enough job without it but I just think that that should have happened. That is down to, well it is down to cost in terms of them coming up and viewing that, which I couldn't say, "We will get x better product as a result of them coming and spending an afternoon looking at this," but there was a bit of their, not lack of interest but it was we can do this without doing that, we'll just take tons of photos, which is what they did. I then, because of that, was very conscious to write up a document around what we'd done, why we'd done it, things that really needed to be in there, key themes, key comments that had come through. So they got probably a three-page blurb in a similar way I suppose to how we worked on the initial commissioning phase. I was commissioning them to deliver something that was true to what we'd done.

I: Okay. So then there's, I guess, a finishing off bit within this writing up phase. What was that role really in terms of was that more writing up?

R: Yes. So once I'd got the skeleton of what everything informed us about where everything needs to go in the content, it was then putting those words down because that's what it didn't give us I suppose, the map and all the post-its and everything else. It didn't give me pages of content, it gave me lots of images and it gave me a structure and it gave me a tone and it gave me what was important to people, which was hugely valuable. I don't believe we'd have got that in any other way. What I would have got is lots of content. So almost that's what I then didn't have, which was left to me to try and just absorb myself in everything and then write it. It was me writing it. I'd lined up who I felt needed to be the proofreaders, which was back within the people team because it's our product and it was xxxxxx from retail, Xxxxx from supplies, Xxxxx and Xxxxx. Xxxxx has seen two page exerts just to make sure that she was happy with the tone.

So that was the pure text, which was the way Xxxxx had wanted us to work. So they were looking at the design piece. I then provided a 30-page text, hopefully in the right tone, some of which might come out because the pictures might supersede them. So it was a slog basically at that stage.

I: So is that where it is currently?

R: Yes. So at the moment we have final text draft. We've got one piece still up for debate and then all good to go into Xxxxx to do their full design. So yes, it will be done by year end, which means it will have been a, pretty much, 12-month project for one document.

I: So we've talked about your role at these different stages, there's been a

number of activities, both at the workshop and here. As designers, we might call them methods, activities, methods, it doesn't really matter what we call them. In communicating what's going on to your internal audience here, I wonder how you've described the activities. So I don't know whether you recall or you still use any particular words, whether you found yourself describing things in any particular way, short hand for what's happening. It's fine if the answer is no, we can just push on.

R: I referred to what was going on in terms of the consultation stage as company handbook sessions I suppose, which doesn't really give a lot away as to what was involved in those. But certainly updating people about we've got another five sessions over the next two weeks with this group, this group and this group, looking at the work we've done on the company handbook, that kind of...but nothing in terms of organising that.

I: I suppose you've touched on a few, so words like making or design or art I think you mentioned earlier.

R: I don't think anyone else has referred to it as art, that's just me feeling quite passionate about the whole thing.

I: Well why don't we dump that question for now. We touched a while ago on the things, artefacts I suppose I'd call them, which just means that they're things that have been made on purpose. You talked about you directing people to them in the sessions. We've talked about your role at various stages but I wondered what the role of the artefacts was in all of this, probably more so if we think about when it comes back here. So both in the installation bit when me and you were having our meetings and deciding how we would set things out and then also that next stage when people are consulted on it. We've got all these funny models on a funny map, I just wondered what role, if any, you thought they played in moving things in any direction I suppose?

R: Definitely huge discussion points from a, "What on earth is that and who on earth made it?" That kind of jovial stuff to, "Actually that's really interesting," there was people pondering what it was or what somebody had interpreted something to mean. Yes, so there were some things that I think people found, "Gosh, that's quite shocking almost," and then them needing to read it and understand it. So there was a crucifix I think on there or a gravestone and they were like, "Who has put that on the company handbook?" But I think then as an object, they went, "Oh right, okay. People are talking about the safety of our people," and going, "Oh, I get it now." Certainly as an opportunity to discuss things and understand things a bit more, from what other people are thinking in the business as well, I think that's quite interesting the way some people have either written or made something and you think, "Mmm."

The messages people have picked up from the business, I think there's a ferry up there now and people are going, "Oh right, okay. So that's somebody's thought and that's the direction the business is going because we've got a shop on the Isle of Wight ferry," and things like that. Somebody has picked that up and thought that's really important; "Isn't that interesting that that's something they've thought to do?" I think, like I said, the sessions became quite long because people wanted to look at the objects, were less interested in making something themselves and more interested in talking or looking at what others had done, yes. I think also a little bit of that, the impact, so I could have got people into a room and talked about what we'd done and how I'd like their input

and their help, "What would you want in a company handbook?" and stood up there with a flip chart and some post-it notes, which was what that last exercise in the room was.

But what the objects enabled people to do is actually digest what others had already done. I think people could see that journey of Company A and relate to their own journey, so I think that imagery, I don't see how else we could have done that actually, to have the objects. So I think they played a big role in it.

I: Then just moving on a little bit further because obviously that phase comes to an end and then you're in the write up phase, which we talked about a couple of minutes ago. I just wondered what role the artefacts then played in that phase when it's just you, not just you, Xxxxx came in a bit later but I wondered, in that final phase, what role the artefacts played?

R: Yes. Well I think we're still at that point where they've still got a part to play because all we've had from Xxxxx at the moment is those design feels of what it might look and feel like. But some of those objects will still drive content so they've got all of the photographs and various objects and very much the brief has been about make something with that, our people have identified...I think the one that sticks in my mind, and I know it does yours as well, is that house with the people on it, with the wigs. It's what can we do with that so that it somehow features in the handbook? That's the skill of Xxxxx really, to turn that into something that can...so we've got text. We've got what we think it's going to look and feel like. We've then got all of the objects and what's actually there to actually bring together to create the final document. That's final stage with Xxxxx once they've had the text.

I: So I guess visuals, so models or photographs given to Xxxxx with some text that then is translated somehow by them into graphic visuals, 2D graphics. Perhaps you could tell me about the role of the artefacts though in you producing text, both as I suppose instructions to Xxxxx, that's one form of text but the other form of text is stuff that's going to end up in the handbook, directly written. What role do these models play in that maybe?

R: So I suppose I've had to interpret what I think they mean. I mean I've talked to people as they've made them so I think I've got a fairly good understanding of that but it's driven content, whether there's any words on there or not. So keeping that example of that whole house family, that world outside of work is featuring in the handbook because somebody has made that as an object. It's there. I think it's influenced tone as well, it's quite good fun, it's quite quirky. It's quite relaxed, accessible.

I: I suppose what I'm interested in is, and you might not be able to answer this, is how and why a particular model might somehow allow you to turn that into text? What's that mental process, I don't know, or what about it that attracts you...?

R: Yes, I suppose I looked at it and thought, and I've done it for all of the objects because I think as the process has gone on I've re-gone back and gone, "Okay, have I captured everything?" So I suppose I've looked at something and first of all gone, "What is it? What's somebody trying to say with that?" So it is my interpretation of what I think somebody is trying to say and how do I make sure that's reflected. So the cross that's there in terms of health and safety, well clearly, and again discussing with the person that's made that, it's hugely important that person sees it as so important that it's life and death. So I need

to make sure that from content wise that we've got health and safety featuring with a very serious message, yet around that we've got the tone of the whole atmosphere at Company A so how do I balance that. So that's how the object helps. So it's not just being health and safety is important, blimey it's so important because somebody has put a cross and a tombstone in there.

I: You mentioned a discussion with the person who made it, did that discussion happen in that workshop or did you...?

R: Yes.

I: Okay.

R: So what actually happened, I don't think I mentioned this before, but people actually felt the need, and this was nothing to do with how I'd led the session, people wanted to talk about what they were putting on the map. I'd not really envisaged that. I just thought people would plonk it on and leave the room. But there was very much a feedback that happened quite naturally around people feeling the need to go around the room saying, "Well I've made this. I've made this because it represents that," so I was writing notes as people did that because I thought, "This is good stuff, I need to understand what on earth that is because you might think it looks like that but it doesn't." So that helped. Does that answer...?

I: Yes. So these conversations where people tell you about all they've made, how did you take that information away?

R: Well I scribbled notes, to be honest. A lot of it, because it's an object it's quite easy to remember so as soon as I looked it I thought, "I can remember that discussion with that individual because isn't it funny that they made something that looks like that?"

I: Okay. Why don't we leave those funny objects where they are for now and move on to some slightly different questions?

R: Yes. We were talking about the commission that went with Xxxxx.

I: Yes.

R: I felt a little bit, I almost didn't want to let it go into their domain really because they do everything for Company A. Everything does look the same. Obviously our shops need to look the same but I was really worried it was going to be a sheep dip of, "That's great what you've done, Xxxxx, but we've got the brand, we've already got all the tone and language and we're going to sheep dip your content and give you back what we think the business should have based on brand guidelines." I suppose time will tell a little bit with that.

I: I've got some questions about that, maybe we should deal with them now. Yes, let's deal with those now. So I'm interested in how these activities, let's just call them activities that have taken a year, I wondered how these activities fit in with existing activities at Company A. An example of an existing activity might be the one you've described which is people send stuff out say to Xxxxx to do the graphic work and it comes back or it might be the way in which other internal documents are produced. But my exposure so far has been mainly just to coming in and helping with this activity. So I wonder if you could tell me, maybe give some examples of

other activities that are maybe similar to this or some that are not similar, from your experience, things that maybe you've had firsthand experience of?

R: Yes. I mean in terms of the whole bit around documents going out and imagery and stuff, I couldn't comment on that because it very much is the marketing comms teams' domain but I mean other activities similar to this, yes, policy reviews. There's a piece of work at the moment happening around reviewing the induction and what that looks and feels like and there's an induction booklet that is produced as part of that. I'm not involved in those projects but they are taking a much more traditional approach, I would describe a much more traditional approach of what have we got, what does it need to look like? Let's carve up the work and give work out to people to write their bit and come back and we'll coordinate a document that we'll then circulate for review and draft a final draft, much more traditional, in a meeting room, having lots of meetings about it, talking about it, that kind of activity. This is very different in that way. How different it is for our marketing team, I don't know.

I: Yes. In the context of the thing you've just described, the process of rewriting I would say, how do your colleagues in that context, how do they find out any new information that might be needed to be added to it if it's a case of reviewing it? Where do they get the stuff they don't know?

R: Yes. Well they would claim they know everything. I suppose it's how that group comes together so its who that group is made up of. So there's experts within that. So although it's being led by the L&D team, they've got a representative from the supply function and part of their job is to understand the whole of the supply function, not just the training elements of supply. So that's the coming together I suppose of how that group is made up, to make sure we've got the right people in the room that have the responsibility to go and find out what they don't know and to consult with other people to say, "Look, we're reviewing this, this is what I've got for the induction, what else would you want to see?" That would be very much part of the terms of reference I suppose of somebody being part of that group.

I: Okay. So that's an example of something that may be a bit different to this. I wonder if there's anything internally that's similar to this, maybe not in all respects but maybe some respects, I don't know.

R: What, similar to a handbook or?

I: No, similar to the activity of how you've produced this handbook.

R: Yes. From my experience, I'm obviously aware of some of the things, you've spoken to Xxxxx, you've spoken to Xxxxxxxxx, you've spoken to xxxxxx who have done stuff as a consequence of what we've done. The only area I know of, and it's only my understanding of the business, is some of the work we do around the delivery of training in the business, that it isn't a traditional method of show and tell or here's a PowerPoint presentation, we're all going to sit through a course for two days. It's facilitated learning style so it's much more around maybe giving people some content to think about but then also giving them the freedom to do something with that. So there might be examples where teams would need to come together in a training session about, they might develop a poster or, not so far as anyone has actually made anything but you never know.

But I know the session I've been in where we've designed a t-shirt, so it's come

through very much a facilitated learning avenue, that's both the research and methodologies behind that. But the more development of a DP policy or that aspect, you wouldn't see any of this touching something like that, probably because it's led by our legal team, Mark. You know what those are like.

I: Yes, I do. Well I can just about remember. Okay, well let's leave that then.

R: Does that help?

I: Yes, it does and I'll come back to something that might round that up a bit more a bit later. I'm interested in things, thoughts or actions or discussions that you might attribute to this sort of period of activity. I'll link that back to a comment you made at the beginning of this interview. We talked about the commissioning stage and you were keen to tie me down to I must have an output that is this. We've talked about that output and the stages that led to it. Maybe output is quite a good word to describe it. I wondered whether you thought there had been any other outputs from the activities and maybe what they were and then we can maybe have a talk about what they are.

R: Yes. I think probably the other main output is just that thought provoking piece around people that have attended that have gone away and done something with it in a different way. Like I say, you've spoken to those people. I think it's given us a sense of reassurance within mine and Xxxxx's team that actually what we focus on within the people team is what matters, the strength of message around people's lives at Company A, the sense of having fun, it's not just colleagues, these people are my friends. Some of those messages you think actually when we are spending a long time developing a recognition tool kit, we're doing it for the right reasons. We're doing it because people want this, that's what people recognise us for. So there's that I suppose as an output, as a reassurance that all the stuff we harp on about, saying we're good at, we've either done a really good job of brain washing or people truly believe it.

I: So just so I'm straight on that, are you saying that it's confirmed you're on the right track or something?

R: Yes, exactly. I just think it's like okay, if we focus our efforts...I mean a piece of work that's round the corner for me is around a truly flexible workforce and how do we try and move ourselves towards that, not just having flexible working arrangements but truly flexible, which is a bit of an aspirational thing. But what I've taken away from the map is there's a desire for that. People will be supportive of that as a way of working. Yes, so I suppose it's not like high level stuff but it's that okay, there's a lot around that, it's worthwhile spending time focusing on that because it will be well received, it will be...because quite often you'll hear the loud voice of, "I can't possibly have a flexible arrangement. This business demands so much. You need to be in at 8am, you need to be here until 6pm," or whatever.

Well you can hear a lot of that sometimes with managers that aren't open to arrangements like that but actually what that small group, because it's not representative of the workforce of people that have been consulted, it's not fully representative, you think, "Actually there's quite a lot of people..." people's families really matters to them at Company A.

I: So what would the best way of describing that be? Is it an insight around that?

R: Yes, I think it is. Well an insight, it's a reassurance I think because what I think we're good at or what we focus on is coming through. It's that authenticity really as well. We do our opinion survey and everything else that tells us lots of great things but are people just ticking the boxes? That was quite a natural exercise where people have had quite a bit of freedom to put something on there that matters to them at Company A. I mean that's one of the things that matters to you in your life at Company A. The stuff that's come through you think...I think there's a piece around community and all the charity work. Volunteering is something that's quite new for us where we give people the opportunity to volunteer in business time. Clearly we've hit on that because people are going, "That's really made a difference to me. I really enjoy that."

The number of things that are on there around what people have been involved in, soup kitchens and whatever else, we've struck a chord there. But that's me, it's not high level board stuff or anything. The strategy that we've adopted there is working.

I: So those bits of recognition maybe, have they gone further than you? Have you discussed those with Xxxxx and people?

R: No, I haven't. I think it's more what do we do with what's there, that's probably the final, final stage, what else is there on there that we need to take from that. I haven't really explored that and think, "Let's get this thing done."

I: Okay. Right, I wondered, with all this activity, who have been the stakeholders I suppose around this? Obviously you're one of them but I just wondered in terms of scene setting, I just wondered who you thought the stakeholders were in relation to this activity and, given it's taken quite a long time, whether those have changed, whether some people have become connected with it, I don't know. But who you thought were the stakeholders of the project.

R: Yes. I think it very much sits within the people team. Other people have been consulted but when it goes out, it's the people team's name on it. So the stakeholders really are the senior people team here who have remained interested in what's happening. I've provided updates as to where we're at. They've all been involved in the proofing. They've all been involved in seeing what xxxxx have come back with so that's very much been an internal thing in that regard, with some awareness in other functions that a piece of work is going on. But to other functions, this is just another document that is in the business. To us and the people team it's one of our key documents that we want to be really proud about, that we want to think is right for our people. The audience is a big cross section of people so, yes, it's not been any wider than that.

I: Yes, okay. Moving that on slightly, I'll show you this diagram. So about 10 or 15 years ago, the Danish government spent a load of money on a big consultation, what can design do for the society.

R: Oh right, okay. As the Danes would.

I: They spent loads of money. One of the simple things but quite interesting things to come out of it was this and it's called the Danish Design Ladder. It's not particularly complicated at all but what it does is try to describe the different levels that design might exist at within organisations. I've shown this to some of your other colleagues in interviews, just as a

way...if I was just to say, "Where does design sit within here," that would just be a nonsense I think. So anyway, just to run through it. The first step of the ladder is where design doesn't play any role at all within the organisation. The second stage is design is only relevant in terms of style. So that might be, well we've got these coasters that my mug is resting on. We're talking about just in terms of the physical look maybe of things in a very superficial way. Then the next stage is where design is integral to the development process and we'll come back to that in a minute.

Then the final stage is where design is a strategic means of encouraging innovation. So this might be at a management level, either within teams or at very senior exec board level where it's been used as a tool to develop strategy for the organisation. So what I'd be interested in discussing is first of all talking about where the activity that you've engaged for the last 12 months. It might sit at different levels of this but where you think it would be on this ladder I suppose, and why that might be the case, if that makes any sense.

R: It does.

I: I thought it's far easier to have something to look at really.

R: I think that the process we've been through, I would suggest that it's at stage three on the basis that it has informed more than just the style of something. It has created what the output will be. It's very much been the design led it really and the process of designing and making and adding to and all of that has very much led what we've done. I don't necessarily see it at the kind of level four. Yes, I suppose it's the interpretation of that, isn't it? I suppose strategic always makes it think it is far bigger than what it is. It has encouraged innovation, I suppose that's the words I'm looking at there. It absolutely has because, by its very nature, it has, people have been much more innovative about what we're doing. I think the output is not necessarily going to look or feel hugely innovative but the process by which we've got to to get there I feel has been.

I: Yes. To digress slightly, I understand how you'll use the thing that gets made, loads of people will get this handbook, great. So I understand how you might get value out of it by people using it and maybe something that's better or whatever. But moving forward, where is the value for you guys in the process, if there is any value in it? So if we say...yes, what does that...?

R: I think it's certainly been quite thought provoking in how do we apply this type of approach to other things that we do within the people team, yes. There is evidence, like I've said, of that already happening but I think if we're talking about this project alone then yes, it's been very central to it, the design.

I: It might help the context for these activities if we could just talk about where you perceive other bits of design might exist within the organisation. It might be some of the marketing stuff or it might be the role of people like Xxxxx but where do you think design, imagine it slotting into the organisation, what are those other bits and where do you think those live?

R: Yes. So I think there's an awful lot at Company A that has no design in its truest sense. I think that's probably the case but I think there's a lot goes on design

wise in terms of styling, which is probably where I want to see Company A being.

I: Okay, so that's stage two.

R: Yes, or here. I think the designer's styling would be about that being led by the marketing team and our brand guidelines that everybody has to adhere to. I think it's what colour have you used? I've recently pulled together a... we're live at the moment with our employee engagement survey, which I lead the project for. So what I did to try and get people in the right frame of mind before completing the survey is we did a bit of a synopsis of the last year. Now rather than do that as poster or written form, it's an animated PowerPoint. It's a video but it's animated PowerPoint, which actually doesn't have very many words on it and has lots more pictures, which you could say - actually I haven't even thought about this - but that whole approach to communication was less about something traditional, which would have been a document or a door poster and more about trying to get people to see it rather than read it. So I think that probably might be an off shoot from me thinking differently about how you approach things.

I: Oh, so writing that, is that poster map stuff then?

R: Yes, it's live now. This just literally launched two weeks ago, the video. But that again was about there's a video, there's loads of content, there's loads of pictures about people and what we do at Company A, here's some percentages about what our survey told us last time, blah, blah, blah. However, here's the brand, here's the colours I need to use and here's the Company A logo because we're a corporate business and that's what we have to do. So that's why I think that's probably where we're at.

I: Okay.

R: I haven't necessarily got it quite right in my head where it sits but whether it's necessarily right or wrong but we've got a strong brand and we're a big business these days so that has to play a part. So I think wherever we go, whatever we create and whatever we do, it will still have to be Company A, it will still have [s.l quad dots 01:13:10], it'll still be well, this, that and the other for the colours and there we go.

I: Okay, that's really interesting. I'll just check my questions; I think we're almost...

R: Which is why I think what we've done is different to how we would approach things and that's why we put the two different stages really.

I: I mean I suppose there's a bit of stage two maybe in what's happening because Xxxxx come in and do their thing, which it's about that I suppose.

R: It is, definitely, yes.

I: Okay. In terms of any other activities in this stage three level, can you think of any others in the organisation, the teams closely aligned to the work you do? If you can't that's absolutely fine. Okay, to take it right back to the beginning, we talked about the commissioning side of it and the bit of conflict maybe between you and I about how the thing is going to move

forward, I wonder now, being able to reflect back on it, what you thought my role was supposed to be in all of this or what you perceive maybe it has been. So we've talked about things that you've done, facilitating, writing up, I wondered...so maybe I'm wearing a hat that does have designer written on it but I wonder what you thought my role was within this process.

R: Yes. I mean I think initially I thought we might have a conversation and the rest of it might be, "Well that's really insightful, I now need to do something with it." I think that how your relationship with Company A has developed over the period of time I think has just been fantastic, which I'll be ever grateful for. But I very much saw your role as expert in this process, bringing experiences from how you'd done things in other organisations, not necessarily the same as this but just your experience of that and the insight into how we can look at things differently and perhaps stretch people's thinking in a slightly different way through design, so very much the expert, very much consultant I think as well around things to think about and where we might want to go. I think as well actually your role, certainly from the sessions we've had, has really made me think.

So I think that what about this, what about that, how might you use that, all those questions that you've asked of me I think have been quite stretching at times but rightfully so. But I think yes, I think that's that facilitator, I mean obviously from right at the outset that session we had on the day itself most certainly facilitator, that was very much passed across to you in terms of running that session once we'd obviously done the commissioning piece. Making sure I suppose we didn't revert into type and stretching us and me into carry on with this, you never know what you might get and all those discussions we had around, "Yes, but, Mark, what about the output?" and you were going, "Just run with it, you never know what you're going to get. It might be rubbish but it might be really good."

I suppose that confident of your character has really supported that process as well so that we just didn't go, "Oh yes, Mark, this is great but it might just be easier if we sent a document round for everyone to read and pass comment." So that I suppose pushing us to continue down that route that is different to how we would have done this otherwise. So I think facilitator definitely, consultant and that kind of advocate of a different approach as well.

I: When we talked about the different phases, there's a point where I really withdraw I think from this. How has that worked?

R: I think that felt quite natural in that this always needed to be our project, the project that delivered what we needed it to deliver. I think there did come a point where we'd got the skills and we'd got some of the tools and we'd got that clarity around how we might approach this and that it was right, it sat within the organisation rather than it being an external person. I think that was quite an important point that when people were coming along to this session, this was about people team, it was about Company A and yes, this is how we got here and we explained how we'd done that but this actually was about us rather than needing I suppose that external input all the way through that phase and being left to our own devices in that regard. I think that was the right thing to do because it needed to be owned by us.

I think for people to look at it and go, "I could do this in my team," whereas forever you've got external input in that type of thing, people go, "Gosh, I could

never do it because Xxxxx has got Mark there and Mark can't come to my meetings," and all of that so I think it probably gave people a bit more confidence to see that that was almost in the background, that yes we'd had some support, a lot of support but it was still ours to do with what we saw fit.

I: Okay.

R: I was still keeping one eye on making sure we got some outputs for you as well in terms of your research but I don't feel that that impeded anything of what we were doing, it was very much just going on in the background.

I: Okay, that's good. Well it's probably a logical point to wrap up the interview. Before I turn that off, I think there's probably a need because the thing hasn't still finished. I half expected to come and you tell me that...

R: And go, "Here it is, Mark." No, you knew that wasn't going to happen really.

I: Here's a signed copy. I think we probably need a short catch up when that's finished and I think I probably would like to ask some questions about the handbook itself and how say the artefacts have played a role in that. But then also I think by the time we've got to that stage, I think it will be more relevant to ask a couple of questions about identifying some of the other outputs that have maybe come out of it. You mentioned confirming your views on some themes that you think are important. It may be that it's a bit easier to see those when this has finished so I think a short interview at that point, I think that would be spot on but we'll close this interview on that if that's alright.

R: Yes, no problem.

I: Okay?

R: I hope we're getting some good stuff from this, Mark.

[End of Recording]

Ryder example:

Audio File Name: **xxxx 090516**
Date: **30 June 2016**
Comments:
Duration: **56.37 mins**

KEY:

Cannot decipher = (unclear + time code)

Sounds like = [s.l + time code]

I: = Interviewer

R: = Respondent.

I: **Thanks for making the time for today. I thought—we need to do a couple of things. One of them is—we've obviously done a few other small interviews that, I think, have satisfactorily covered the initial workshop and chats about Bim Academy and the design review meeting and some of those were also in notebooks and things as well. So I think we've dealt with those.**

I think it would be useful, almost from a housekeeping perspective, just to go back and have a quick talk about what happened in the box task; box exhibition and the presentation at the leadership forum. So overall thoughts about that and also anything that's coming off of that. Then I thought we'd have a talk about your broader role in all of this. So what I'll call the in between bits. We had lots of in between; at one point we had a year of in between. In between the first workshop and the Bim Academy stuff.

I thought it would be worthwhile having a chat about what your role was and what we think about that. Then that's kind of it. There's lots there to talk about; so that's really the focus. So a bit of catch up and then go back and try and understand the role that's floated over all of this, if that makes some sense?

R: Yeah I know. I hope between us we understand what that is.

I: **Yeah, we'll work it out, Ian. That's fine. I'm just going to run through all of these, including the earlier ones, just so we get an idea of chronology. I think my thinking's changed on this. I think I was—I thought initial workshop which is February 2014 then jump straight to the box and then that's kind of it.**

But I think the other things were quite important, in how we developed what we were doing. So after February, a whole year and a bit later, I come in and spend two and a half days on a Bim Academy project; lots of talking to you about that. Then I do a day in the design review meeting, which I think was really important because it allowed me to gain, I think, Xxxx's trust because he was in a lot of that meeting. So he could hopefully (unclear 00:02:59) I wasn't a complete loony!

R: Yeah, they're completely different. They're probably the two ends of the spectrum in terms of the way we approach it as well.

I: Yeah. I think the good thing about those two is that in our conversations before that, I think I'd been struggling to work out how we were going to do a design led intervention in the organisation that was going to meet all interests of the people. I don't think even the initial work shop is that interesting or motivational. I think as we were doing it internally, we wouldn't have these—kind of the cover story of, it's a day out of the office, enjoy yourselves.

I think I was struggling to understand how you pitch it to motivate people who do design activity all day long, and it helped to see those two, you know, computer says no at one side of Bim Academy, and then the design forum, which is a real free-for-all. So that helped position (unclear00:04:02).

So I think the Bim Academy and design review meeting is really, really important. Then the box thing in September 2015; that dragged a couple of months because the holidays and things and then the exhibition which we can talk about in November. And then this presentation in the leadership forum.

I think they're all quite discrete, quite small interventions. I think it's only when you look at them all together they kind off make sense really.

But, I wonder what your reflection is now, if we just went back to September, or upon that week of people making boxes and things they made. I wonder if you have any thoughts since then?

R: I think that—if I just go slightly before that and then lead into that. Initially, with that exercise, we thought it might be something that made quite a big difference to the way people work. As we went through the process of kind of designing the box; how the exercise would work; how the stuff that went into the box—it became more obvious that in the (unclear 00:05:05) room diagrams, where the linear roots, everybody just nudged the direction a little bit and it's almost like a coercive task rather than an about turn. In terms of the box exercise itself, I thought it was really interesting.

It was a beautiful thing and it was an appropriate thing as well. It kind of came to bits, had the right level of content and was engaging enough within the timescale that we were giving people. I think we got some really good responses from that and it clearly triggered discussion and dialogue in that whole kind of activity around making in the areas that it was done.

In some cases, more successfully than others, I think. Some of them were done as a bit of a "I've got to do that on top of a day job" so it was a bit of a homework exercise and it's just do something for the sake of it. You probably always will get that, depending on the person, and their workload and pressure that they have at the time. You can't just have everyone sat there making models all week. I think some people respond in different ways, but I was pleasantly surprised by the fact that more of them were addressed than I thought would be. I was worried that it was it ten or eleven that we had in the office. I was worried that maybe one or two might get done. I think it was, what? Seven, eight that we had?

I: Nine altogether.

R: Nine I responded to. Not all well, but…

I: Yeah, I think we gave out twelve boxes in the end in total.

R: So I thought it was good. I think that in the areas of the office in Newcastle where those boxes were distributed, they were treated differently, depending on the teams and the people that they fell to. Some of the people pushed them to the one side and it went on their to do list. Other people opened it and went "oh, what's this?" and spoke to everyone around them about what they had in front of the. It depended on the character of the person, I think.

I: Okay. Well, that kind of accords with the conversations we have immediately afterwards. Then the next thing we did was we thought we should share it within the organisation, so we put some stuff into the reception area. What did you think about that?

R: I think before we did it, I thought that's a really good idea. It will get people engaged and they'll come and look at it, it'll be great. After it happened, I realised you got people who looked at it and you got a lot of people who browsed; actually probably more visitors who would come into our reception and look at it rather than staff who, whatever you put in there, people walk past.

It's one of the problems that that space has a little bit. You almost get kind of exhibition blindness. As you complete the whole configuration of the space is the same every day. People walk through it every day, and if you just put little things in it, I think people walk past those little things a little bit more. You did see the odd person having a good look, but nobody engaged with it.

I: So do you think it's kind of a habitual passive engagement out there? People are used to just passively looking at stuff and walking off to (unclear 00:08:38)?

R: Yeah. I thought about that space bit after that exhibition. We had another one a couple of weeks later, a guy called, (unclear 00:08:46) from Excite? He put loads of stuff that was a competition that they put out to different students to make a little kind of astronomy box thing, next to the project that he's looking at. An expedition of those in the (unclear 00:09:04-00:09:06); brilliant space. Best place for it. I said, "you'll not get anyone looking at it." "Oh no, I will, it will be great. It will be great."

I watched the way people interacted with it. When you had groups of people in the reception area that did look at it, or people that broke out of a meeting or something like that, but generally, you get the same thing when people walk past. People are actually only drawn to things in there that are noisy.

I: I suppose, I mean, I know Tim's office. It's a very small space, the reception area, so I can see why this might seem like a massive opportunity just cause it's so very different.

R: You get a lot of, I don't know why, but you get a little bit of this kind of architecture blindness; where if it there's an exhibition of architecture, people just kind of drift through.

I: That's interesting.

R: Actually, it might have been more interesting to hang them in the windows outside because we get loads of starers at the stuff that's been there for about five years now, hanging in the window.

I: I was busy looking at these things in here this morning. Let's move that forward to… I think my view was similar to yours on the exhibition. It felt like a bit of a failure at the time, but I can see all the reasons why that was the case. I'm not sure what we really thought. Even if we had got a response, I'm not sure what we would have done with it.

R: I spoke to Xxxx. He was looking at it and that, kind of as I was walking through at the time, and we stood there and had a chat for five minutes. He said "it all looks really interesting, but I can't work out what is trying to say." I said, "I suppose it's not trying to say anything yet, it's just showing the process as it is at the moment."

I: Yeah. I think maybe it was just a misstep to think that we had to show something shiny and for presentation. Maybe that's not the right way to do it, the fact (unclear 00:11:12). Okay. Then it moves forwards and there's the leadership forum. It was in a much more concise format, so there was some data we pulled out; some highlighted text outside the box suggesting some sort of material concept—overall concept about materials?

Were you in the meeting, or not? You were in the meeting as well, weren't you? What did you think of what happened and how it was received and what, if anything, subsequently happened?

R: Well, I thought it was—a lot of things that happen in a leadership forum when you go into that session. It's almost like a shotgun type pace. It's very quick. So I got in there and I think half way around the table, probably half the people around the table absolutely got what you were on about; and half the people were like, I don't know what this is about. Why are we talking about this? So people like Xxxx in Glasgow…

I: Yeah, Xxxx really got into it.

R: Well, that's just what he's all about. He's thought, you don't need to tell me that. I've been telling everyone to do this for years. I think Xxxx's on a similar page as well; and actually Xxxx. I believe, anyway, Xxxx Thomson was because he just thought, yeah we should do it. But Xxxx has the other thing in the back of his mind which is, why don't people just fucking do it? I don't need to tell them. That can be quite a frank discussion in that room and there are other people who kind of weighed in a little bit, but probably didn't (unclear 00:12:54).

Gareth, from Liverpool, who sat to my right, who kind of weighed in a little bit but probably…

They talked about what they used to do when they were at university, or kind of, "ah, remember the good old days when we used to make models?" That's kind of what I was trying and get—bring that forward and actually make it a thing that's part of what you do now.

Or at least what the teams that you manage do now. So it got to different levels of success, I think. But the message that you communicated there was really clear, I thought. There's a lot of stuff that happened in the run up to that, and it was what three sides of A4? It was a very simple synopsis which was, you

should make more stuff was part of your design…

I: I think it might have been Xxxx was saying…has there been a modelling machine bought?

R: Yeah. We bought a laser cutter because a lot of the bits that we struggle with are kind of quickly assembling things, like a site base to model into, because making loads of quick conceptual models of a building don't mean a lot without the context. So the laser cutter helps you get all of your site context that your messing around in, in place. Then you can test options within that to get to within the model.

I: Have people used that?

R: It's just been tested on Friday. So it's a little bit…I think it was installed last week and then they had a few bits of MDF that they were putting through there.

I: I saw something Xxxx did. Is it called "While you Draw?"

R: Yeah. That was incorporate. So after the leadership forum, it came from a presentation that xxxx and xxxxx (unclear 00:14:38) younger architects did to leadership forum, around kind of what the key skills of the architect—or what the architect exists for. I think that correlated with—which is what Xxxx generally thought about why architects draw. So that was kind of, that came together with Sarah presenting up there at our retreat in March on the island.

She presented a session on why we draw there, which is all about what the purpose of the drawing is rather than just going straight into a computer with the purpose of actually getting a pen out and it's about communication. All the stuff that we know about. That was just spreading that to a wider audience and making people more aware of that; it went down really well.

And there were a load of other presentations at the retreat that tied into that theme. The retreat often focuses around the finance, the people, the process side of the business and this year proved the first time in quite a few years it's focused on the architecture and making that product better and developing on core skill a little bit more.

That was really successful. All of those presentations were around the same message, whatever topic people had been given to start with it all came back to them. We just need to be better at architecture buildings. We then presented that two weeks ago at an old blue print, which is the whole company. All of that the space we used at the bolt it was all structured around after all the space. But we had kind of a huge, oh god I've forgot what it's called now.

They're event space things that have like cabaret style kind of tables in the room and a corridor leading through it that will take you to coffees and stuff. But the whole arrival area with the bank of four lifts or whatever they've got there, we had a huge graphic across all of that wall there, which was a collation of all of the sketches, sketch models, sketch anything, the loose bits of throw away material that we produced just lining all of that wall.

We'd done exactly the same thing previously about five years ago, and it had loads of words that were important to people, and it was all about like fun, engagement.

It was a little bit too kind of going down the google path of trying to verbalise

why you're good at doing something that generally isn't that verbal. But that space there was where we did all of the kind of break out before. So you set the context of, you're in an art gallery. We actually produce stuff that's quite interesting and visually engaging. You then go through into a space and we talk about that and you come back and you're in that (unclear 00:17:29). The whole process of drawing and making and craft was part of that part of our plan for the future of the company which is what blue print is.

So I thought that was a really positive step, and that wasn't a kind of--that's not a direct link between somebody made a box; we talk about a box; we put proposals forward. It didn't just get like that; but there's been a lot of different information that's come together. That's helped us plot a course which is towards, it's more towards kind of trusting and being a bit more free with the creative ability that you've got; not just worrying about (unclear 00:18:13) schedule for it. Is it in the model (unclear 00:18:13)?

I: I suppose one of the questions, we might return to this a little bit later, is whether to effect change within the organisation, whether these small interventions need to collide with things that are happening internally.

R: Yeah. I'm sure we drew that in a—that's the trajectory that we're on. You don't do that and then go the other way. It is a case of little things coming in from different directions and having varying levels of influence. It helps if you have a lot of people who are similarly minded, or at least have, maybe not similarly minded but at have different ways of—they all come towards the same point at some point.

We talk about making better buildings, but we deliberately use the word making in there. We deliberately use the word building rather than architecture because we felt like we weren't focused—we talk about architecture as an almost an abstract thing that we don't do. But actually, it's a thing that you're in the middle of all the time that you're working.

I: It's a bit like, we talk about design in the design school. You use the word so much it almost becomes meaningless.

R: Yeah. That's the thing here. We have these brochures that go out. They used to have the word architecture plastered on the front of them. We just thought, you look straight past it. You don't really—it is an abstract thing when you're so engaged in it. We need to get to that point where we definitely want the word making in, making small scale and making large scale and making the buildings as an architect, rather than just drawing bits of it or modelling bits of it.

I: Do you think this change of focus, is it a real change or is it just some visuals on a wall in the [s.l Baltic 00:20:24] or in reception?

R: No. It's more important than that because the bit at the retreat and the bit, probably the bit at the retreat and the bit in preparing from the retreat to the blue print; it had complete buy in from everyone at leadership. That is the direction that we need to pursue. We want to be—if you had like a league table of architects, there is a bracket at the top which we probably would never get into because that's about that single egotistical architect at the top; who everything in the practice goes towards what they want.

Then there's a bracket of really good solid practices who do outstanding work. It's all about the work that they produce. Then there's another tier underneath that which is practices who work very hard and come up with—constantly

change what they're doing. They try and get into that top bracket rather than just being confident about what they're doing. So I think we want to make that step into the next bracket, where nationally we're seen as somebody who delivers really good quality buildings consistently.

I: So a part of that journey, buildings making craft, are they part of that trajectory?

R: Yeah. They have to be because we spent so long worrying about what your contractor wants, have they got the right information, all the admin side of it. We haven't been as focused on, is that as good as it can be? Have we tested that? So we've started to—a lot of the stuff that came out with blue print, we're now started to feed back into the practice. But feeding it back in through design forum because that method works very well. Getting people around the table and actually exercising some of that creative strength that's there.

But we're just asking, we're putting more demands on people in terms of what they bring to that. So turning up with two plans isn't enough anymore. You have to have done the analytical work in the background to show you understood and analysed the site; the way it works. That you've done your research in the background. That you've looked at the modelling and the context and stuff like that. So we're using the design forum as a, have you done that kind of (over-speaking 00:22:42).

You can't go round and force everyone to make models. But what you can do is say, that's the output we expect at that level. It doesn't get out the door until it's been through that level. So there's a little kind of gateway to—and that's where we're going to start, and probably (unclear 00:23:03) to start to try and push the boundaries a little bit more. We talk about why we do design forum on every project, or at least an intensive review on every project. There's varying views on that.

Xxxx's view is that it's too admin heavy to do that. It's too time heavy to interrogate every project to that degree, but I'm not sure that's—you almost need to interrogate every project a little bit and then the ones that really need it, you kind of pull them out to spend time on it. We're working on that process now. But it's how you enforce a level of quality and control and a process of working without enforcing it and going round it; wrapping people's knuckles for not making a model. It has to be a bit more organic and you have to grow into it, I think.

I: Yeah. Okay. Well, let's take a sidestep at that point. Let's have a think about what your role in all of this might have been, Ian. So initially, it comes out of you being a participant in the original workshop. I know we've talked previously about the subsequent group interview and then subsequent individual interview. But I think the goalpost has probably changed quite a lot since then. So I wonder if we just start with that and maybe think about…

Well, let's think about what you thought your role was at that point, in terms of taking something on from the first workshop.

R: I think probably the first workshop, I think it missed the point with us, as a group. We've talked about that before. But the idea was right to have a disruptive act of some description that moves your process and moves your thinking. When we had the group discussion and the (unclear 00:25:04) we kind of, I think I probably said quite a lot at that group discussion. There is an

(unclear 00:25:11) of between fourteen or fifteen people there who were probably, there was about 60% scepticism, just like, what was that about?

And those other people who were, I don't know, it was interesting. Then, for me, it was reminiscent of the way a couple of tutors that I'd had when I was at art college in Edinburgh had worked, where they hadn't taught you about architecture. They'd just pushed you a little bit and made you think about something different. I think you end up with a better creative process if you just get nudged from side to side a little bit and challenged a bit more.

Then we spoke afterwards. I think I probably talked about the frustration that we don't get our heads up and make models, do the little sketch drawings, do that more fluid part of the process as much as we could. And the environment in the office upstairs where at any given day, most people will be staring at a screen. I think that's probably where I came at it from. I didn't really know how to be involved after that. I just—you would normally come in with an idea of how to move on and bounce that off me. I would have a think about it. Probably change my mind a little bit two or three times. We'd probably then agree on, well that's definitely what we need to do there. Then you'd go away and change your mind about it. So it was a completely, for me, organic process.

I: Did you have any brief that you had to either fulfil internally, or was this a line to any other brief that you had?

R: It started off where I didn't have a brief, but I had an aspiration to try and engage us a little bit more in that. I wasn't as—I'm probably not, still, as tied into it being modelling. I think making can be about sketching as well. It just depends what your media is; what you're most comfortable with. But that fluidity of process. So I was wanting to see where it would go to. I didn't have a brief from Xxxx or Xxxx to do anything about that, but I've obviously been engaged with a lot of discussions over a lot of years around that topic.

I thought this might be an interesting way of doing that, but I wasn't sure which way it would go. So I probably gave myself the brief of just listening; giving my opinion and seeing where it went to. But then once it got to a certain point where we probably spent a fair bit of time and you start to get to a point where you're engaging more staff in process. Then, I thought, probably at that point, that I needed to understand what we wanted out of it, which was some kind of…

For me, it was a (unclear 00:27:47) leadership forum that I wanted out of that, which was—there's been a load of background research there, or analysis of what we do. There's a couple of things that come out of that as a product. That's the bit I was focused on. I didn't mind what that would be. I just wanted it to have a conclusion that you could go to them and say, we've done loads of stuff there and it's involved some daft things like making boxes or putting an exhibition there.

But, actually, there's a couple of really important things to come out of it.

I: Did they need to be tangible in some way then?

R: They didn't need to be measurable, I don't think. You didn't need to have data behind them. But they needed to be something where there was an evidence base, or at least an analytical base that said, if people model more, whatever it is, just engage with the idea of an unfinished object rather than a set of finished drawings.

More than anything, it needed to be something around—it needed to be clear that the discussion had been had around that and that and that we hadn't just went, we've got one idea and went and pushed that; because that idea had moved all over the place over the series of, whatever it was, a year and a half, two years.

I: In terms of characterising your role—for my part, I would say that I was acting as a design researcher and as a designer and maybe a facilitator. There's probably some other words as well. But can you think of any words, how you characterise your role in these in between bits? These conversations and sketching in our funny notebooks, those bits?

R: I don't know what the right way to describe it would be, but it's open mindedness, I think, is what I wanted to have about it. But also, just to try and give it direction a little bit, as well and tie it to what we actually do a little bit more. Because you having an outside view is good, in terms of being able to have an objective look at what we do as a process. But sometimes, I think, I probably needed to just take it away and think about how it would apply to what we do, from my perspective, as somebody who has been here for quite a long time and hopes to be here for a bit longer.

So I don't know whether it's grounding it or just tying it back in to our process a little bit, but I didn't see it as being a particularly active role, for me; other than just listening, trying to understand where it was going and then maybe trying to shape that a little bit. I don't think there was an overarching direction I wanted to go in. It was definitely a wait and see approach. What do you think my role was?

I: I think it was more equal, I think, more equal than you suggested. But this is just from my perspective. How would I characterise it? I would say something like it was almost like a co-design process where, okay, albeit that after the little co-design meetings that we have, it would often be me that would go away and do a sketch or something; or make a list of something and send it back. But that's often the case in a co-design process. In between the multidisciplinary bit, someone is sent off to do a task that moves it forward so that everyone can come back together round the common stuff.

R: I was always mindful through those discussions that I didn't want to go away and say, oh well, Xxxx, I'll go away and I'll think about that and I'll draw that because I wouldn't do any of them. I don't think—it's hard to engage with something like this unless you actually force yourself into a room and spend an hour talking about it. Then you go about the office and there's 50 things that are more important than it and it slides down the list. I just thought…

I probably, slightly, whether it was knowingly, it probably was knowingly just batted things back to you and let you do that.

I: I didn't do a huge amount away from here other than reflect often on what we discussed. So I suppose, I was desperately trying to get a better and deeper understanding of context. So as well as doing bits of observation, sitting in the office, doing Bim, doing design for whatever. By talking to you directly about the project, I could get an understanding of context that was relevant to the type of thing we might be proposing.

In a way, I think the intervention, I don't think it had a purpose for most of its life. I think at the end we kind of connected it to this stuff about

materials and (unclear 00:33:37). But it felt a bit like it was almost a metaphor for a wider brief. A brief along the lines of how do you effect change here? Or how do we get people to change their thinking here; not generally, but here in this office. We were obviously, well, not obviously, but it felt at times that we were addressing these broader briefs. But still looking at them through this very narrow focus around, let's get them to play with junk. Let's get them to engage with the materials.

I think the reason it took so long was, I think, because…

Maybe not consciously, well certainly, I wasn't conscious at the time. But actually, we were trying to work out how we could effect change. That's quite a difficult thing to do.

R: Well, I had to effect change by engaging a lot of the staff in it. I actually don't think that's the way to effect change here. You talked about the Company A scenario, if you got just some bits of coloured things out with some shapes on it, they'd never seen coloured things with shapes or whatever, so they engaged with that more. I think with people here, it's probably harder to engage them with something that's a little bit closer to what they do.

You almost want to take them out and get them to make pasties.

I: You could come and do that actually. We've got a new test shop in the office. I'll tell you about that in a moment. One of the big contrasts here is, you're surrounded by things you've made; sketches and bits of plans and things. There's none of that in Company A. So, for example, we did this staff handbook that they went off and made, following this big project that we did with them. Because it's probably the only authentic piece of graphic material in the whole organisation i.e. not just tops and tails by someone externally.

It's gone off to have a life of its own. People have come and stolen things from this. So it's become a firm about something completely different. It's become, you know, phrases have been co-opted into all sorts of other materials. If you want some really authentic material (unclear 00:36:11) created by people (unclear 00:36:13) organisation. There aren't many other pots of it lying around. Whereas here, there's probably (unclear 00:36:18) use for something, or they could use something they've made themselves. So very different scenarios.

R: Within Ryder at the moment, we're starting to move some of our outward facing stuff towards—Xxxx probably talked about everything architecture and what we're doing with our website; some of the content that goes in towards it. It's not just about the website. It's about how we project ourselves externally. Rather than just, our kind of external face is very much, we are an architect, this is how you procure our skill.

(Over-speaking 00:36:52); that's a school we did; that's a lab we did. But it's more about the process of making a building happen and the fact that we could engage with a (unclear 00:37:02) know whether they need a building or not; and still at a stage where they are testing and analysing that building in use and kind of everything in between. We're kind of a little bit more of an open door policy. But when the way we used to communicate on project work was through kind of two/three photographs of what had been finished with a description; and the cost; and the area of it. The project sheets that we're putting into that now are talking about the lifespan of a project and going from [s.l party 00:37:33]

diagram, which for a building could be—the prospectus is the one for a hospital that we're looking at, at the moment. But it could be as simple as that. That's your concept for the building done. That's kind of a big, heavy (unclear 00:37:45), a big heavy technical block that (unclear 00:37:47) round the outside of it. That's the one that was done on a design forum meeting.

We go from that through whatever the process is to the finished photograph of the building at the end and all of that project literature is going to—it talks about the process of making a building from nothing at the start, rather than just going, these are some of the buildings what we did.

I: So is that sort of saying, choose us for our thinking, rather than our building?

R: Yeah. Choose us for the process. But the process is architecture and if that architecture involves structural work, if it involves really heavy mechanical, electrical engineering; whatever that is, we'll address that. So we're not going out and saying, (unclear 00:38:25) we'll do multidiscipline and design. But start there with a question xxxx beforehand. Then we'll bring in the people that we need as you go through in getting to your finished product at the end.

I: Is that just shining a light on what you currently do or is it also going to require a bit of change here?

R: It shines a light on what we currently do. If Xxxx thinks about the best projects and how they work. Then it is shining a light on what we actually do. But it doesn't shine a light on what we consider—we don't consistently do that on a lot of our projects. We don't challenge hard enough there. We probably aren't tight enough there in making that diagram absolutely everything about the project and then testing it. So as we go through that project path, coming back to different stages and checking them and actually doing them all the way through; we're not as rigorous as we should be. Rigorous (unclear 00:39:21) kind of rigor consistency. Creativity and the bits that we've done do enough of.

So by pushing that out to your client, saying that's what we do, you kind of have to do it afterwards one day. Because they don't take you on for I want hospital A from the brochure of hospitals. They're kind of, I don't know what I want. Come work with me. So it's a different…

Nothing happens, I don't think, in practice, without the client wanting it. I think that's an analogy for anything in life. Without having that initial demand from somebody, not many creative processes get off the ground. They are just—they float. They don't get anywhere. I think having a demand there and somebody who wants an output at the bottom, (unclear 00:40:15) creative process having to blow that up and then (unclear 00:40:18) back down again. I think that gives meaning to it.

I think we're starting to be better at that and to actually promise that to people. So I think that's it. It's not a—we don't just now sit in the office making things out of playdough. But the influence that that process had on a handful of people, probably at my level and above, my level in leadership forum, and the kind of ambition that all those people had to get the best out of that process, was not individually ticked by what we've done. But by a series of different things that have been done and have been kind of important. So that's been kind of elevated.

I: Okay. That's interesting. Just to round this off, Ian, what do you think

you've got out of—we've talked about what your role might be. Lots of conversations, bits of doodling, gradually narrowing the project down so that it was maybe relevant and so the outcomes were presentable and tangible. What have you got out of it, personally, do you think?

R: When I first spoke to you about this process. Well, when we did the individual interview, I was probably quite negative about the way we work. I'm quite excited about the way we're starting to work now. So that's what I've got out of it. It's as straightforward as that for me.

I: But has the way that you work changed or your understanding of it changed?

R: I don't think the way I work has changed massively, but I think it's probably shifting slightly. I think there's a lot of working methodology that goes into a lot of our projects that isn't as—it doesn't get the most out of the projects. There are more now. There are more people working in a way that I think is productive and challenging. I think we have better processes in place to make sure that's actually being done.

I: Okay. So how does that relate to your involvement with this project? Are there direct links or is it part of a movement?

R: It's part of a load of different things, I think. But having conversations, at whatever the intervals were round this process, with you and kind of understanding what the limited impact of some of the things that we've done more broadly with staff has been; and then the bigger impact that you can have by influencing at the right level and with the right information; and probably having done that stuff in the background. I think that's kind of made me understand how you can effect change here.

It's not just—you used to get (unclear 00:43:25), we should just be better at architecture. We should talk about architecture. It's just like saying, ice cream should be nice, or whatever. It's nothing. It doesn't mean anything. You have to—how that it is important. I think this process has helped me understand how and then be able to effect that a little bit more.

I: Okay. So this is maybe a bit of the how.

R: Yeah.

I: All right. That makes some sense. I think we're almost done. We've probably covered as much as I think we can really.

R: What have you got out of this process?

I: Lots of different levels, I suppose. Yeah. I think when you look back at some of the notes of our conversations, some of them are literally me and you just reflecting on our own experiences of creating processes. So you'll say, "oh we did this and someone sketched this and it was rubbish," or whatever. And I'll say, "well, I sometime do this." And you'll say, "Oh I didn't know that." So it was quite—there was that cathartic aspect to it; being able to reflect on process.

From a data perspective, yeah. From a data perspective, my focus has shifted. At the very beginning of the project when we had the first workshop, my research was really interested in what. So if we run a

workshop or an intervention with people, what will they make? How will they feel? So what are the characteristics of this sort of practice? But that was very kind of immediate.

I've gotten loads of data all about that, from this project and others. But increasingly, my interest is in the why. So, okay, this is what people made or this is the experiences they've had. But why are they able to do that within this organisation? What's the organisational context that enables or prevents these things from happening?

So, to put it in the context of Ryder, a couple of examples. One would be, maybe why some people just shrugged, having done the box intervention. Because the context here is very much, there's lots of creative processes. You can take your pick almost. So for some people it just didn't feel different enough from other things. Then maybe a better example is probably, even though the learnings were absolutely tiny, because Ryder has, not just an experience of doing experimental projects, but also because it's used to bringing people in from outside. It's used to dealing with outsiders.

So it's able to point to previous projects and go, we don't need a huge amount of data to validate this or measure it. If it feels right, we'll just act on it and we've got a long history of usually being successful with that. So I think that meant that when we did finally get to the end, people were very quickly able to say, great. Xxxx will go off and buy his machine for £10,000 and Xxxx will start the argument with his internal model maker about whether the model should be low tech or not.

People were just able to accept stuff without really needing to have it compared to anything else and just say, we just know, from experience that these things—we've been trusted by the organisation who've either come on a recommendation or from an organisation that they know like Northumbria. Therefore, we can just not worry and crack on. It's those bits of context that I've found really interesting.

R: I think the way we apply it, it hasn't just been that we just go, right let's change, we're off down that route based on a little bit of information. It's based on lots of people having similar views around a topic that then sets your direction. You don't need a schedule of stuff. You don't need (unclear 00:48:24) numerical data, they're nothing. We talk about (unclear 00:48:27) design and that works when you're designing very specific things for specific clients. But when you're talking about your own process, you don't need evidence for it. You just need to feel that the people who are going to be leading and engaging in that process are all up for the same thing.

I: Yeah. But I think this kind of collision theory almost, the fact that the recommendations are made at a similar time to when Xxxx's stuff about drawing is starting to percolate. You've got this technologies group just about to be set up and there's maybe—from my letting off steam about the Bim thing, certainly quite a lot of people agreed with me about the down points of it. So maybe some sort of dissatisfaction with existing processes. Only when all of these things kind of collide, people are able to say…

It's kind of the (unclear 00:49:23), isn't it, this is part of something maybe, a bit bigger and that gives us a comfort that we now must do something; whether it's directly in connection with that or something else. So I think

that's been the most interesting thing. Understanding a bit more about the organisation and the context of it.

The other thing that I've yet to really unpick is how it weaves in and out of the stuff that I did with Company A because it very much did affect my thinking. Conversations we had here about creating process. Often I'd be interviewing someone at Company A the same afternoon, thinking about the total absence of creative process. So conversations here led into questions there and vice versa. That's been, I mean, you just couldn't get two more different organisations.

So, yeah. It's been great.

R: Do you think it's contacted enough of our organisation? Because I've been aware that we spend a lot of time talking to each other, but then it only goes outwith the room in small bits. Does that work the same way in Company A or is it different?

I: I suppose the other way of looking at it, what they do differently here maybe. I think Company A—a very senior group of people from day one. That really helped. There were some people who just had a free hand with budget. So there was a guy who, just after the initial workshop, rang me and said, "brilliant team building." I was like, okay, yeah, team building. If that's what you think it is. "Come and do a team building session for me. I've got a new team. I've got a budget. Come and see us." Fine, if that's what you want to do.

So they were quite free to just crack on and do things with it. I think they all came out of an existing programme. (Unclear 00:51:38) business school. I think they want to do something very different to that. The circumstances were quite different. But, no, the similarities are more striking. So your equivalent, Xxxx, at Company A, 90% of my time at Company A, just with Xxxx, having very similar conversations to the sorts I've had with you. But instead of talking about creative process, we'd just be talking about process. So we would just be saying, how did the last handbook get drafted like this? Right, what are we going to do that's not the same as that?

So rather than—we didn't have any creative processes to really look at. We just had a big hole. So we just started looking at other ways of doing things. Most of the activity was just on a one to one basis.

R: It's almost a task that you can focus on and we haven't had a task. It's just been about seeing what…

I: The other thing is, in Company A, if you imagine—so you've got some units of activity and they might be a workshop, or it might be some other intervention. OI, let's call it. Some of the people who took part in these were so deeply affected by them, or just empowered or whatever; they've just gone off and started making their own things.

So they've taken bits of process from these and often allied them to existing processes in order to get access to budget and things. But they've gone off and they've emailed me photos of, you know, here's a workshop with 100 people making a poster. So they've gone off and they've just started doing things. Some have even identified themselves as being mavericks. Doing things their own way.

Because there's nothing like this within the organisation, (A) it's really easy for them to identify it as being different from what they would normally do. But it's really easy for me to subsequently go and say, well that doesn't look like anything Company A was doing before these things (unclear 00:54:07). That's pretty easy to work out.

I think what's happened—so again we've got workshop and we've got other intervention. If people have gone off and maybe been affected in a small way by some of the design activity, I wonder whether it's visible either to them or to me. It just feels so closely aligned to their existing practices that it would almost be impossible. I think any changes would be so subtle.

R: You wouldn't get somebody going away and going, oh well after I made that out of plasticine, I then went and made this for that project because the process of making it inspired me.

I: Yeah.

R: I don't know.

I: I think, Xxxx, bizarrely, was one of the most affected by it, from my conversations with him.

R: Yeah.

I: But his thinking on it is quite developed anyway. So he's already thinking in that way. That we should be pulling in this slightly different direction. Yeah, that's probably the main difference. But that's because all of this stuff, the surrounding stuff is full of design anyway here. We're in a sea of it here. Xxxx and Xxxx have both been telling me all about that today. They've got different ways of describing it, but they're quite clear about that.

Whereas here, design sits a little bit in the marketing department. There's some externals who are over here who are design agencies and some other things. There's some guys who do shop design. There's [product] design. Other than those areas, there's very little. Stuff that's identified outwardly as creatable or design led. So these things, they stand out. They might as well have sirens on top of them. So that's the big difference, I suppose.

That's why they've been such good case studies. They're so different. I think one of the themes that's come out. I'll turn this off.

[End of Recording].

Appendix G: Examples of transcripts of interviews with senior managers

Company A example:

Audio File Name: **xxxxxxx 190416**
Date: **29/06/16**
Comments:
Duration: **0:44:05.0**

KEY:

Cannot decipher = (unclear + time code)

Sounds like = [s.l + time code]

I: = Interviewer (Interviewer in bold)

R: = Respondent.

I: **There are three areas I want to touch upon; the first one is your background, so a bit about your career, the sort of things you've done, what you now do, here, on a day-to-day basis. Then, I want to touch upon those activities, so the funny map that we made, and what your experience of that was, or knowledge of it was, we can come to that. Then, the third thing that I want to talk about is design and creativity within the organisation, and I've got a prompt that we can have a talk about, as well; we'll probably spend a bit of time in each of them. So, to start with, if you want to tell me a bit about your career history; what you did before, when you left school, and how you ended up at Xxxxxx?**

R: Left school, went to university, did four years at xxxxxxxxxxx University, studying business law and business administration, had several jobs through university, so I used to do filing at a doctor's surgery, in between lectures, during the week, I worked in xxxxxxxx two nights a week at the customer service desk, I worked in a bookies on a Saturday, and I worked in a shoe shop on a Sunday, which was what got me through university. I guess, transition time, through those years, I probably started to enjoy the Xxxxxx role more, and so, gradually, I dropped the shoe-shop, worked with Xxxxxx at the weekend, and I dropped William Hill to work at Xxxxxx on the weekend, to the point that, in my third year at university, Xxxxxx had done a structural change, and they'd introduced Xxxxxx Way-of-Working.

xxxxxxxxxxxxxxxxxxxx had just taken over the business, and they introduced a structure which had deputy customer service managers in it, and my store manager at the time … I was already checkout supervisor by this point, part-time, whilst at university, who was quite forward thinking, and said, 'look, would you like to become deputy customer service manager on the evenings that you work, and the weekends', which was brilliant, because I got to go on all the Xxxxxx Way-of-Working modules and courses, as if I was a full-time part of the management team, and that was just a brilliant experience, and I guess lucky, because the whole Xxxxxx Way-of-Working culture was around, and the managers that they made, the managers for people, were almost … xxxx used to say, "they allow ordinary people to do extraordinary things", so it was about that; you're never going to have the answers as the manager, you need to

facilitate where the answers come from.

I completed university and, if I'm completely honest, took the easy option; I had the choice of a consultancy role in London, or going to apply for the Xxxxxx Graduate Scheme. The Xxxxxx Graduate Scheme would allow me to stay at home in Glasgow, and with the consultancy I had to live in London, so I took the … if I'm completely honest, it was the easy option. I had to go through these entry processes, got onto the Xxxxxx Graduate Scheme; retail graduate schemes are notoriously high responsibility, quite demanding, lots of working hours, but I loved it. So, I ran customer services for a while, which is checkouts, ran trading parts of the Xxxxxx floor, and then, bizarrely, as I had never thought of going into personnel, as we called it then, but a maternity cover came up, so I was asked to go and cover her job, and I loved it; I think I did two or three maternity covers, and then did a project role for a year, which was going out and implementing a new IT system and then, bizarrely, the Regional People Manager in Scotland was going off on maternity, I think I was about twenty-four at the time, and I got the opportunity to cover that role in Scotland, which was phenomenal.

I did that for six months, and did okay, so got the chance to move down to the South-West of England, and take that role on permanently, covering South Wales, Cornwall, Devon, M4 corridor. Then, I guess, in Xxxxxx, structure changes happened all the time, so the piece in Xxxxxx was just things that had just changed, so I started with twenty-six shops, and by the time I left that region we had seventy-two shops, because the divisions just kept getting bigger and bigger and bigger, and less of them. So, all my career, leading up to that point, had been very operational; it was hands-on management, it was practically being at the coal-face, helping to make decisions, and what I had never done is, I had never been part of the decision-making body that focussed on term, what were the horizons, what were the decisions? So, I got the chance to move to Xxxxxx House in Leeds, we'd lived in Bath at the time; moved up to Leeds, and I became the Head of Reward, which was the financial aspect of the people role, which not a lot of people get the opportunity to do, but is probably, in this world now, of REMCOs and PLCs, is much more important.

I did that for a couple of years, and then went on maternity. The role I had always aspired to get, in the business, was the Retail People Director role, but it was something that was way out there in the future, and whilst I was on maternity, again, another forward-thinking piece of the organisation, the HR Director, phoned me at the time, and said, 'xxxxxxxx's moving on, the role is coming up for Retail People Director, would you like to apply for it?'. Typical female, I said, 'no, not at all; a new baby, coming back to work, don't know how I'll cope. Yes, I'm coming back full-time, but this is all too scary'. An old boss actually contacted me and said, 'I believe you've been approached for this role, and I believe you said no, now wake up, you could do it', so anyway, I did take the role on, loved it, did that for a few years and then became Distribution People Director and, if I'm honest, probably both those roles are a little bit on the planning side, but are a lot … you're reacting to what's happening in the market and the business, you're putting plans in place, but you're having to deliver here and now, in the operation.

Then, I got approached for the Xxxxxx role, in 2009; I was on my third maternity by that point, and, if I'm honest, what allowed me to be brave enough to make the step to move from Xxxxxx, with twenty years' service, was I hit two maternities really quickly, back-to-back, because I'd only been back at work for four months, and I was back off to have my third child, and, almost, that time away from the business gave you some thinking time and, actually, do I really

want to go back to this? And, a brilliant head-hunter, who helped me see what the future could look like. The big appeal was being the number one role in Xxxxxx, i.e. a big part of it is decision-making, the future strategy, coming up with the direction and the plans, which I love. I've done that for six years now, so I guess how my role has changed, in the time that I've been here, is, it's always had the people focus, it's very much part of the operating board, so we sit as an operating board, with no functional hats on, therefore when we're making decisions, we're making them looking at the business context.

Once the decisions are made, then we take away our functional part, to deliver, but we all have to sit there with customer-centric, customer-in-mind organisation. Through the time I've been here, I've had xxxxxx people, and health and safety; that then changed, and it was people and communications, that then changed, and it is people and foundation now. So, although I've been in the role for six-and-a-half years now, it doesn't feel as if the role has stayed the same -

I: What does 'foundation' mean?

R: The charity part of the organisation. The two chief executives, so xxxxxxx, who was here from when I started to 2013, and then Xxxxxx, who has been here from 2013 and beyond, and changes at board level; we've probably got three new members now, around the table, and two that have left at some point, in the past, since I was here. Enough change to continue to make it feel as if it's not Groundhog Day, and you're not going round the same cycle, because retail is very cyclical; it is a twelve-month calendar, and it has almost continued to rotate around that, so it's actually, how do you have that newness, that keeps you excited and positive and motivated? External to the organisation, I have taken on a number of roles; in 2012, I took on the role of sitting on the employers' forum for reducing re-offending, and then, in 2013, I became the Deputy-Chair of that, and I'm about to become the Chair of it.

I've taken on the business and community leadership team role, in 2016, from xxxxxxxxxx, and then I'm a trustee of the Xxxxxx foundation; I sit on the Yorkshire Two Percent Club steering committee, so, other pieces that just keep me motivated and, I guess, have a little bit of a finger in different pies, so that's career to date.

I: Right, well that's excellent; that's all my questions on background, so we can move onto the design activities that we've been doing with Xxxxxx. So, they go back to 2014, when we did a workshop with twelve senior managers, who were all on the strategic leaders' programme with the Business School, so we were offered the opportunity to step in at the Design School, and do a session with them, rather than the Business School doing it, and it was very much without a specific brief, just to throw things up in the air a bit. That led to a couple of conversations, one with Xxxxxx and one with xxxxxxxxx, that led to further activities being commissioned; the one with xxxxxxxx was based on the notion of him having a new team, and wanting to explore new ways of working, and we ended up making paper bicycles for a day.

Whereas, the project with Xxxxxx led to an introduction to Xxxxxx xxxxxxxx, and that led to a couple of bits of activity; in February of last year, us spending a day making a map of the organisation, and trying to understand what journeys through that would, maybe, look like. Then, it led to a further project, which was the reinstallation of it, within head office, and the consultation that Xxxxxx and I co-designed; rather than me

saying, 'we'll do this', it was something we worked on together, and so lots of people were engaged at various of those different stages. What I wanted to ask you about was, how much you might have known about these different activities, then we can talk about any specifics that come up?

R: I have got the most brilliant team here, which is probably why it keeps me so engaged and motivated, so they are real self-starters, both Xxxxxx and Xxxxxx are great examples. I would say what they're also very good at is upward communication and involvement, and ideas generation. So, Xxxxxx came to me, after your session, straightaway, to bounce off me, 'look, what do you think about if we do …' and then, very quickly, Xxxxxx was engaged, and Xxxxxx was great to keep me up-to-date with what was going on, and … what I would say is, whilst they kept me up-to-date, it was absolutely their project so, they may well have asked for my views, thoughts and input, but, in terms of the shaping of it, and the delivery of it, it was absolutely theirs.

So, when the (unclear 0:11:17.1) had all the information on it, Xxxxxx would frequently take me up there, and walk me around it, and seek views and input, but then would go away and do whatever she was doing with it, so they're both very good, I think, at … and they did that with me, I'm sure they did it with a number of people, seeking input and views to get a broad church appeal, if you like, of other people thinking about it, but also big enough, and ugly enough, to then not have to ratify their decisions with people, but then to just get on and do, without checking. So, I knew all about it, all the way through; we did a team session where we took our team up, and Xxxxxx managed that session, and I got all the updates, etcetera. If I'm honest, I feel really lucky that I did have the Xxxxxx background that I had, because in Xxxxxx there was a phrase, "work that's fun gets done", so if you can inject fun into something, or a little bit of change, actually it's amazing, where people feel comfortable in something they're doing, or they're out their comfort zone, but it's different and it's not the normal, mundane; how many ideas people have truly got is just phenomenal, and I think that project just pulled all of that together in a way that I'm not sure …

So, my vision at the time, the one I was pushing the team hard on, was 'get the handbook changed, get the handbook changed, get the handbook changed' and, if I'm honest, my vision at the time was the John Timpson books; the Mr Men type little pictures, with the bubbles -

I: The people who do the key-cutting?

R: Yes.

I: Someone mentioned that; I think Xxxxxx, at the very beginning, referred to that -

R: In his books, everything is colloquial, it's fun, it's down to earth, there are no policies, no bureaucracy, it's just very, 'you know what, if you're great, well you can do that, and you can do that', and there are not a lot of boundaries in his books, so my plea to Xxxxxx was, get this modernised, get this up-to-date, but, literally, they're very broad; that's the only example I can give you, of where I've seen it done really well, so you're going to have to take what the Xxxxxx part of that is, and make it Xxxxxx, and I think that's what, through this process, Xxxxxx managed to do very well.

The other thing that she has done, inadvertently, is, because there were so

many people involved in the process, the new Xxxxxx guide probably feels owned by a large proportion of people, because the one piece I'm always really keen on, as People Director, is things don't come from the people team, it's not 'the people team have said', or 'the people team are asking us to do'; the people team are one of the support functions that drives the business, but it should be, 'business are asking this to happen, and we've been one of the facilitators of making it happen', and I think this project absolutely delivered that because, although Xxxxxx has been the key lynchpin to making it happen, a number of people probably feel as if, 'yes, I owned a little part of that book, it's my thoughts and ideas', so that all worked really well.

When you were talking about your questions, at the beginning, the piece that I thought I'm not equipped to answer is the Xxxxxx guide verse that we've got just now, what role do xxxxxxxxxxx…? I'm not sure if you've met them, the marketing agency that we use?

I: Yes, Xxxxxxxxx.

R: Yes. What role did they play in getting us from the concepts of the board to the concept of the Xxxxxx guide? So, I didn't go to any of those conversations, Xxxxxx managed that, but that's an interesting, 'I wonder what that agency actually … did they facilitate at all, or did they not, and just took what you had and put it into a guide?'.

I: Xxxxxx kept me filled in on what was happening, through that process, in so far as I got to see process diagrams that Xxxxxxxxx had provided, and I was privy to some of the conversations that were going on between Xxxxxx and them, and there was a bit of conflict, at certain points, because Xxxxxxxxx weren't particularly happy with how Xxxxxx wanted to run it, and with the information that she wanted them to take on board, so it was a bit difficult for a while, but I think it all got worked out.

R: I was going to say, that's always the way of a marketing agency, I guess; they think they're protecting your tone of voice and your brand, it's always an interesting dynamic. I'm not sure what inputs they had on it. Interestingly, what I would say, and I don't know if Xxxxxx has fed this back to you, the Xxxxxx guide that has been pulled together actually, now, has got tentacles everywhere. We just did a retail management conference, and the majority of the presentations and the slides that were used, were predicated on pictures, and the flow-charts, within the Xxxxxx guide, and we've just seen, recently, some presentations that were on the customer side, customer tone of voice, and again, a lot of those use a lot of the pictorial representations in the Xxxxxx guide, so, if I'm honest, it's probably, which was never the intention, but is fab, it's almost created a platform that we're using in a number of areas, which links our policies and processes and systems, not just on the employee side, but all the way through to customers. So, I think that's a real positive, which is a spin-off that hadn't been expected.

I: I'll come to that at the end; I'll come to why that might be, maybe, at the end. So that's an overview of that project, from your perspective, but just going back to what you mentioned about your team going in; in fact, your team was on the first day, because I was in the building until about half an hour beforehand, helping Xxxxxx finish it off and whatnot, and then I disappeared and I knew your team was going in the afternoon, or whenever it was. Forgetting the wider picture, and how this has gone on to be used, what was your experience of taking part in that workshop that Xxxxxx was facilitating? So, this is in the funny loft room with the map,

and your team, and you were being asked to make some things and put them on the map, and mess around with it a bit; what did you think of that half hour or so that you spent in there?

R: Very positive, I guess this team just engage with things that are a bit different and enjoyable, so I think it went really well. Naturally, people started to pair up and add things on, and write on … maybe it took a few minutes for people to warm up, to really understand, because of (unclear 0:18:09.4), I remembered, 'I don't want to write on this, because it looks too nice', so there's a little bit of, 'no, that's that purpose of it, write on it, change it, put your footprint', and I remember people being more comfortable writing on card, that they were then sticking on, and then, I think it was xxxxxxxxx, then drew on it, and it was like, 'oh, actually just draw it right on', so I think there was a little bit of, at first, people were a bit, 'I don't know if I can get truly involved', so the involvement maybe took a few minutes for people to warm up, and then, actually, be willing to make their mark on the paper which is then there forever. I think there was lots of fun, high energy, high engagement in the room; I think Xxxxxx managed the process very well.

The piece that I think was, probably, missing, which I'm not sure I'd say was a criticism on that day, because I'm not sure if it could have been done in that day, or a follow-up was, 'what exactly are you going to do? How is this going to translate? Yes, it has been a great half hour and we've had a bit of fun, but has it really been useful; will you really be able to do something with this, and is it not just yeah, I've put my mark on it?', so I think there was probably that little bit of … because nobody knew what the end product could be, or maybe would be, there was almost that link, which I'm sure it was difficult for a lot of people to make. Interestingly, if I think about it now, if you were able to show the Xxxxxx guide, and say, 'we're doing this, this is what we came up with last time', I'm sure people would be a bit more like, 'right, so whatever I put down here will have an impact on whatever this looks like in the future'.

I: So, if there was another project in the future, along similar lines, you think the fact you could point to the lovely guide is that, 'this is what happened last time'.

R: Absolutely, so it's real, it's tangible, and you have formed a part of this, and whatever you have put down, that feedback has been taken in. So, almost, if you opened this book up, it's like a Pandora's Box, that brings alive everything that was on that paper; we've just had to capture it in the book, and then close it back down again as a, 'at this point in time, this works for us'. Yes, it's maybe my brain; you'd have to ask other people what they think, but I think there is something about what you see, what's tangible, and be like, 'yes, I can see why this is important, and what it leads through to', but I thought it was a very engaging session. I think all the sessions went well, I think there was only one session that I think didn't go as well, from memory, when she said that she was running it, and I can't quite remember why; I know the group didn't go well, but I can't quite remember why it didn't go as well.

I: They'd had another meeting immediately before it, and I think that meeting was about restructuring their team, and so they all came up in a bit of a grey mood, and it was a really difficult session, I think, because of all of that.

R: I remember there was something going on, but that was the only session that I heard … I think Xxxxxx still managed it, but found it very difficult, and probably, to be fair to her, found it very draining at the end of the session, because she

didn't get any of the high energy, fun, warm enjoyment that you would just expect to get in that type of session, but you're right, that could have been predicated on the situation they were in. All the other sessions, I think, were very positive, and I spoke to a couple of people afterwards, like xxxxxxx and xxxxxxy, who had been involved, and they loved being involved; those that were in a smaller group, got involved more often, and reviewed it more often. Again, I would hope without asking them, but if you did ask them, I would hope that they would probably say, 'yes, that guide is a part of me; part of me helped form that guide'. Then, the feedback on the guide, which is the ultimate test, has been excellent.

It's interesting, I was feeding back with one of the directors, recently, at a board meeting, around, 'we need to improve our tone of voice, we need to improve our communications', and I said to him, 'have you seen the Xxxxxx guide?' and he said, 'yes, that still doesn't do it', so I said, 'okay, go and read it for me, over the next few days and tell me if you still don't think that does it, because if you don't then I need to listen to that, but I need you, particularly, to better things, because I'm not sure what we're missing', and he did come back a few days later and said, 'well, I hadn't really gone through and realised what a change from our old communications to this communications had been', but the majority of people, I think, are thinking, 'actually, it's not just a move on a handbook, it's a step change, in the way we communicate', which is something, now, we need to build on.

I: On that point, about people not understanding how Xxxxxx was going to go from a room full of crazy junk, to writing this book; when I talked to Xxxxxx about that step, she said that it wasn't possible for her to interpret all this data, all of these strange models, and things. It was more about her training herself to be influenced by it, which is a much subtler skill, I think, but that's hard to explain to people.

R: Yes, absolutely.

I: If she'd have said, 'I'm just going to be influenced by this', had she known that was what was going to happen, people would have thought, 'she's lost the plot here', but I think, maybe, culturally, that doesn't go on very much, and people aren't necessarily being asked to interpret or be influenced by artefacts they've made, and so it was quite a new thing, really.

R: Absolutely, it was completely new.

I: There wasn't an existing vocabulary, within the organisation, to explain what was going on, and so there was a bit of a gap but, as you say, maybe that would be plumped, second time around.

R: Those that were involved, I think next time, it's like anything, people probably … in fact, it might not be crazy enough next time, to get the views out because, having seen it once, they're like, 'yes, done that before', it's almost like 'what's the next iteration of change'. For those that haven't been through it, they might think, 'yes, this is great, get me involved'.

I: Yes, there is an issue with that. At the same time, I was running some interventions with Ryder Architecture, along a similar remit, but because they do crazy, creative things all the time, it was pitched at a different level, because we had to say, 'well, we can't do any of these things, because they probably do them in their normal day-to-day activities', so

we had to find things that were incredibly difficult for them to do, to try and engage them, challenge them, so it was a bit different.

R: I guess what that process did was, it just took people out of their comfort zone so, by taking them out of their comfort zone, you got them thinking I ways that wouldn't be their normal way of thinking. You're right, I guess, every organisation, every group of people's comfort zone will be at a different level, and it's how do you take them to that next level.

I: Well, let's finish off, because we've got about ten minutes left, by talking about the role of design within the organisation, and that's a horrible question that not really anyone … I don't understand, really, what it's about, so the best way I've found, of asking this question, and I've asked it the same way to all of your colleagues, is to show you this, and this is the result of a review that the Danish government did, of how they might use design in Denmark, and it was fifteen/twenty years ago they did this big government review. One of the things that came out of it was just this diagram, which is now known as the Danish Design Ladder, and what it seeks to do is, to try and understand what level of design might be used, within different organisation, and so it's like a staircase; stage one, there's no design, or you might call it creativity, within the organisation at all, so that one might simply be a manufacturing organisation that simply takes designs from somewhere else and churns them out, and doesn't use design to think about things or creativity.

Where I've started talking to people at Xxxxxx is really to say, well, I think it definitely exists at this second stage, so design and styling, and it seems that's very much the case, both internally, say, with the marketing department, or coming up with new packaging for products; how they're going to look. xxxxxxxxxxxx has talked to me, at length, about how stores get designed, and I'm also aware, through the stuff with Xxxxxx, about the use of external consultants like Xxxxxxxxx; bits of work get done in Xxxxxx and, towards the end, they get farmed out into firms to make it look nice, and give us back something that we might like. You're nodding your head as though that sounds like it might be the case? What I'm really interested in is whether design, or if we were to call it creativity, is used further up the ladder?

So, design as process would mean using a design process, maybe, to develop a new product or maybe to develop new models for customer behaviour or staff training, and that would mean, instead of just developing new things by committee, it would mean using bits of creativity to move that along in the process; getting people to engage, and create artefacts to do that. The final stage, design as strategy, using design or creativity as a tool at the highest level of the business, so at your level, to think about finding out the stuff Xxxxxx doesn't know; how does it find out where there might be opportunity in the next five years? Things it doesn't know about, how does it use creativity to open up some of these areas of new thinking? Hopefully that's helpful in, maybe, breaking down where design and creativity might live within the organisation, but I don't know what you think, whether any of that sounds relevant to Xxxxxx, or maybe it's not as simple as that?

R: I can definitely see number two, in terms of functional shop layout and packaging products because, actually, what we do there is we go out, and we look at what others are doing, and we try and finesse and come up with models, and get feedback, and we will take it through several different feedbacks. I

guess the piece about being influenced by others; the shop layout team, the design team, the product innovation team will do that, but it's a functional level, where they're coming up with it, but they're trying to get the external views, the market views, the internal customer view. The kitchen is a hard one, because the kitchen team are the ones that do muck about with flavours, and we've got our range of different spices, and they'll try a muffin with some chilli in it, so they probably are experimenting all the time, maybe by the fact that the kitchen is set up in such a way that they have got a high table that they'll work around, and then they have all these condiments all around; it's a little bit, 'can you come up with something?'.

At the same point, what they'll probably have done is, they'll have gone down the high street and they'll have several products, as well, that people are looking at, and try to copy, so they maybe do some of the creativity, because very rarely does the first product that the kitchen show us ever become the product that we can make, for a number of reasons; it's too complicated, it's not right, wouldn't work for customers, it's too spicy in flavour, or whatever, or you just can't produce to the volume, so they maybe one of our most creative teams that we've got, in the business. Interestingly, I don't think the marketing team are, bizarrely; we look at what the market is doing, and then we follow, rather than spending that time creating.

I don't know if you spent any time with xxxxxxx? If you spoke to xxxxxxxx, he may well say, 'no, I don't go to the sessions down at xxxxxxxxxxx, but maybe when the marketing team do go down there, maybe they do spend a day where they just throw ideas out there, and there's things to make them think differently, come out their comfort zone. So, as a business, I think that, on the design piece, we're probably more functional and practical and, almost, we've got stages of process so, are we truly creative, I think there are probably caps on it. Interestingly, as an [s.l ops floor 0:31:37.9] we've actually, for the last year, had a coach that we go to, which is partly this piece about trying to forget about what we do, and what xxxxxxxx does, very successfully for us, is we'll come together for a day and a half, somewhere in the UK, usually in a hotel somewhere, and he will have a number of activities for us to do that, if I'm honest, some people around the board table think is bloody mad; they don't want to do it, they find there's no relevance, why do I have to do this?

Every single time we have one of those sessions and we do a recap at the end, there's always a wow moment, where there's like, 'oh my god, we've just come up with … that's what we should do', and we've challenged ourselves now that we've said, 'do you know what, it would probably take us six months' worth of board meetings, and we would get there, but one of these sessions, a day and a half, just gets us there so much quicker', so we think it accelerates us because we're not constrained in what we're doing, nobody sits there with their functional hat on; xxxxx is brilliant, because he's a very supportive coach, but he's also a very challenging coach that keeps pulling you out of your comfort zone. So, I think we have started to do some of it. Interestingly, the sessions that we do with Simon are probably, at the most, quarterly, so therefore I think, are we doing it often enough to get to that level and sustain it, or is it, almost, we do it, we come up with a wow idea and then, if I'm honest, as a practical, operational business, we all then retreat back into functional zones, to implement and to make happen, which takes some of that creativity away, because we go straight back into, 'let's just make it happen, and make it land'.

What we also haven't done is we haven't thought, 'yes, how could we replicate this, and get people out of their comfort zone?'. Now, interestingly, one of the reasons for Strategic Leaders, for us, was, speaking to xxxxxxxx, we want to do

something for this group of people, that gets them out of the Xxxxxx world, because we know they're experts in Xxxxxx, we know they can do the functional jobs, we're pleased with that, but we want people to come out of the Xxxxxx world and get into different worlds where they think differently, they bring back different ideas, they challenge us differently. There was a phrase in Xxxxxx, "you need people to swim against the river, all the time, if you're ever going to get those tensions that means, actually, your ideas just got better because you're not all thinking in the same way". There were a couple of bits at Strategic Leaders that maybe did that for us, however, my one criticism of the programme would probably be, it then became a pretty much run of the mill business model programme, and we had designed it at the start, going no, let's be a bit different in learning, etcetera.

I think there's a piece there around, we know we could do more, and I think we probably stop ourselves at this stage and, whilst I think we'll have a couple of examples up here, so therefore I think people might see it working, I think we naturally retreat into, right, we just need to do, we need to get on; there's always a piece around the business moves so quick, competitors move so quick, people are running all the time, and I'm not sure we've got enough process in the business to get people to step back, think about what would add more value, try it and then see if that can move you. Almost, you leapfrog a step, whereas we'd go through the next meeting, the next meeting, the next meeting, build on the ideas, and they'll work and they're good, but there's not that sort of revolutionary thinking.

I: **Yes, I mean that sounds like a lot of the stuff I've heard. It seems as though the activities you guys are doing, at fourth stage, with this coach; that's supported at the highest level but, some of the activities that came out of the interventions, especially with Xxxxxx's group, so people like xxxxxxxx and xxxxxxxx, have just gone off and done their own thing, which is great, and they've got people making all sorts of stuff, but whether that's sustainable or not is another question, and I think the only way they've got away with it is because there's no strategic aim that supports what they're doing, so they've had to ally it existing practices and processes, so they won't be criticised for doing it. So, they've said, right, we already, for example, do this process and it was advocated as part of the Strategic Leaders thing, and the stuff that has been cascaded down from there and, therefore, in order to get away with making crazy stuff out of junk, we're going to put it alongside that, and say it's something a bit similar, because then we can keep doing it.**

We've got these little pockets of activity, but there isn't really any strategic aim that supports it, and there's no real resource, so only people who've got an existing process, and have, maybe, got access to a little bit of the budget, can go and buy cardboard and paper and things, and are able to do this, but I think it's quite hard for this to translate into this wider culture of creativity; that needs something a bit more top-down, I would have thought.

R: I think it has to go back to start; fundamentally, we haven't decided that's what we want to do, so (unclear 0:37:25.4) bigger piece there, we've allowed it to happen and that's the lovely thing about Xxxxxx, there are not constraints; as a business, it's a business that pretty much allows people to get on and do their job, however they want to do it. So, there aren't the constraints that would stop people, but there'll never be the support to get on and do more of that, unless we were to make a decision that that is what we want to do, and that's not been done, it's been, 'gosh, that has worked really well', rather than, 'now, at the

heart of the business, we go about doing things in this way'. That would be a strategic shift that we would have to make, and I guess, just now, we do it as an enabler, around however people want to get on, and do things in the way they want to get on and do them. We reap the benefits, without having had the discussion around, 'is that the right way forward?'.

I: I've been to some of the training sessions, internally, that go on, what are they called?

R: The espressos.

I: The espressos; I was going to say cappuccinos, I always get it wrong, but I've been to some of those, and I think they're absolutely brilliant, but the focus seems to be on delivery and feedback, in quite a limited way, and there is so much wonderful stuff that goes on, but there's no way of measuring, 'well, actually, that method was fantastic, and maybe that's part of a wider bit of activity', so some of the things that are going on are really creative, really interesting, but nobody has drawn a line around it and said, well, actually, that goes with this, and it's part of a wider body of activity and, look, it's producing these types of, slightly different, results. So, all of that is quite interesting. I'm in write-up stage, at the moment, which is really interesting -

R: Gosh, I can imagine, lucky you.

I: Lucky me. One of the things I'm going to pull out of that, for Ryder and for Xxxxxx, I've already done it as an oral presentation for Ryder, is to do an executive report. So, out of this, I'll pull out something that's digestible; I'll circulate it to all of you guys, with all these findings, that isn't overly academic.

R: Absolutely, then we can understand.

I: It might be useable, but yes, I think loads of interesting things have come of it.

R: For those that have been involved, so it won't be for everybody, because a lot of people weren't involved, but for those that were involved, it's probably moved their thinking one step forward. For this year and next year, there are two big key focusses for the business; one is the xxxxxxx implementation programme, which the (unclear 0:40:07.5), and the second is the supply chain B structure, which the other part of team will implement and I guess, like everything, when there are such big initiatives going on, people retreat back into, 'I just need to do the functional day job', and it's almost, when people have got the time and the freedom, that the finessing, and the time to think, comes about to say, 'can you join the dots on this, and is there a better way to do this?', so I don't doubt for a minute that, probably, lots of what has been done, while it's great stuff, is replicating what has always been done, rather than trying to move it forward.

I: Why don't we close it there; we've covered everything I wanted to, and quite a bit more.

R: No, thank you, because I do think it's a lot of up work, and I think the Xxxxxx guide is excellent; it's a massive step forward, and I think, without that work, I don't think we'd have got there. I think we'd have got an improvement on what we had, it wouldn't have been hard, but I'm not sure we'd have got something that is futureproof for the next few years; it will get us through, and I think when

people pick it up and see it, they're proud of it, which is lovely, especially if they've been involved in it. So no, thank you for that.

I: I think one of the key reasons it was able to happen was because, in the people team, not slack in the system, but there seems to be flexibility of resource, so there was already, I think, from talking to Xxxxxx and Xxxxxx, an anticipation of, even if they did what they had always done, there was loads of time in the system to talk, and go and engage with people, and no-one really measures how long that might take. So, there was this built-in flexibility, so I could swap a bit of talking for a bit of making stuff, and then thinking about it whereas, I suspect, in other bits of the business, where the processes are a bit more prescriptive, so maybe in accounts or legal, or that sort of aspect of it, the regulatory side of things, processes are maybe a bit more well-defined, so you can't just go, 'throw all this out, we'll start making things'. There was that; we could do some swapping around, and it felt like there was that bit of flexibility, and I think that was really important.

R: Great, thank you Mark.

I: I'll stop this.

R: Perfect.

[End of Recording]

Ryder example:

Audio File Name: **xxxxxxx 090516**
Date: **30/06/2016**
Comments: **Clear audio.**
Duration: **34:42**

KEY:

Cannot decipher = (unclear + time code)

Sounds like = [s.l + time code]

I: = Interviewer (Interviewer in bold)

R: = Respondent.

I: **What I wanted to do is really cover three areas with you. First of all, your background so I can just understand the context for the views that you're giving. Second is to talk about some of the interventions that have taken place as part of my involvement with Ryder over the last couple of years and your views on bits and pieces of that. And thirdly, to talk a little bit about the design and creativity within the organisation, so those are the three things.**

R: Right.

I: **But we'll kind of rattle through them, just tell me what you think. So first of all to kick things off, can you just tell me how you came to be here; education, training, interest. What led you to become an architect? What brought you to Ryder?**

R: Right. [Laughter]. Depends how far back you want me to go.

I: **[Laughter]. A summary will do for today, Peter.**

R: My… if I go way back, my dad is an artist. Though he never actually said this, he was a bit of a frustrated artist, and I was brought up with a slog interest in, I guess, materiality through the work that he did. And building things, because he bought a wreck of a house and spent all of my teenage summers being builders mate. So, I kind of decided I wanted to be an architect fairly early on with that (unclear 00:01:47 to 00:01:52).

Then I went to the school of architecture at Birmingham, which was because… it's quite interesting. It was the Birmingham school at that point that was quite radical. It was based on all of the assessment group in design, it was all on design. There were no exams, everything was design assessed.

I: **Okay. So you'd present your projects?**

R: Yes. I mean, it was just all of you. Your degree was based on design work rather than exams. If you're doing technology, for instance, you don't have a

separate technology exam. In our school it was incorporated. It was all design based.

I: Yes.

R: Which was a fantastic revelation to me. So I kind of stumbled into a world that I suddenly found that just felt right for me. But sometimes it happens, doesn't it?

I: Yes.

R: Certainly it was more accident than -

I: Yes, we'll come back to that. And your role here; so jumping ahead.

R: I took it. Again, quite by chance I ended up working back in the North East. I qualified early 70s but there was a recession going on.

I: Are you from the North East then?

R: Yes, I was born in Durham. And I was up visiting home and called into the RIBA office to see if there were any jobs around and ended up getting work in a small practice up here. Having tried all of them, I came up here. And then got to know third parties, so getting to know a bit about Ryder and [s.l Yates 00:03:47], so I got an introduction to them through this mutual friend. Because that was kind of where I wanted to go, and I've never really gone. So I started off working as a young architect and now I'm (unclear 00:04:05).

I: So how big was the practice at that time?

R: It was about fifteen people. I think in its whole history it had never been much more than 30. The original partners didn't want it to be any bigger than that because it was essentially one team. It could be controlled by the partners, that was the way it was. In those days, the main project took that number of people, because you were all doing drawing boards and all that, until they all closed down actually.

I: Yes.

R: And it was a multi-disciplinary office, which was another big revelation of just walking into that environment of work.

I: What does multi-disciplinary mean in the context of - ?

R: Well, it was architects, it was (unclear 00:04:52) and electrical (unclear 00:04:54). But it was (unclear 00:04:55) that space and everybody just worked together with projects and, 'I have this idea and vision. Right, let's do it". What that means in terms of joined up working.

I: Yes.

R: So that was, in many ways, a great environment.

I: So what's your current role now and what does that comprise?

R: Well, because Xxxxx and I took the business on in 1994. Again, we're opportunistic leaders. The last [s.l division 00:05:33] of partners had kind of got taken [s.l in doubt, or into height 00:05:35].

I: [Laughter].

R: And there was no succession partner, so, we took the business on. In that period of time, he and I have worked very closely together to develop the business. But as time has gone on, that close working has, certainly in the external reception at least, is now much more polarised. So, crudely, I look after the design quality, Xxxxx looks after the business. But the truth of any kind of business voucher is that it's much more fine-grained than that.

I: Okay.

R: But simplistically, that's…

I: So what does looking after the design comprise? So what is your bit?

R: It's kind of making sure that we get the very best out of every project. So that's design reviews, it's a regular design forum that we do. It's day to day engagement as appropriate. It's no longer running a project, it's working among the teams to help them get the best.

I: Okay. So you work across divisions?

R: Yes, and making sure they're all constantly [s.l raising 00:07:07] again.

I: Okay.

R: I think we're the glue sometimes because teams will quite often focus on what they're doing and don't necessarily (unclear 00:07:21) somebody else is trying to sort the same problems somewhere else, if you can imagine.

I: That sort of way people reinvented the wheel, separate desks and things.

R: Yes.

I: Okay. Alright, well we'll move it on a little bit and talk about these interventions that have taken place. And I'll run through these, there's a few of them, and then I've got some questions about them. So I think the key intervention; when I'm talking about interventions, I'm talking about times when I've brushed up against the organisation in my role as design researcher and designer, and done things with Ryder.

So the first of those was a workshop in February 2014, which was with you two, a presentation for a retreat that had been planned for next month or so. A whole year later in March 2015 I took part in a big academy competition for two and a half days, and also spent a day in the design review meeting with yourself and a few others.

Later on in September, we had this box appearing on a few peoples desks that made things. A couple of further things came out of that. There was an exhibition that took place in November 2015 of the things that had been created, and then again following on from that in January of this year, I gave a short presentation with the leadership forum about this materials first approach that could be advocated.

Now, before digging into your thoughts on any of those specific ones, I wondered from an overview what yours and Ryder's motivations were and

interests were in engaging in these sorts of activities. So why bother, I suppose. What was the interest from Ryder, and from yourself?

R: Well, okay. We're always open to doing things better and doing things differently. There are always better ways. We've got a huge interest in the power of collaboration and what that unleashes or can unleash, and we begin, I suppose we begin to think a bit more radically now around how you can enable that. Rather than just assume that it will happen. Because we put huge emphasis, as you probably know, on the sort of qualities of the people we employ.

I: Yes.

R: And we expect people to be kind of [s.I risky 00:10:44] by nature and to enjoy that process. But that in itself is sometimes not enough, because you know people are busy, people get channelled into what they're doing and they've just got to get on with their job. So, you know, the increase in challenge really is how you continue to get the most out of that process because I'm a believer in the best ideas, the sparks come from the most unexpected sources. That, and sharing thoughts and processes. And you need to structure that in different ways.

So I've spent years to try and overcome. I mean it's one thing trying to get collaborative processes working within your own organisation, but then when you're working on major projects across other organisations who are an integral… they're always going to be an integral part of the design processes and (unclear 00:11:55) challenge in how you bring that thinking together. Rather than what traditionally has happened is that the architect will do their bit, then give it to the engineer to do their bit and somebody else will do their bit and come back and it's done.

I: Yes, so it's a sequential thing.

R: That sequential. I sort of describe it as this throwing it over the wall mind-set.

I: Wait for it to get thrown back.

R: Yes, waiting for it to get thrown back. So, it's kind of just a continued interest in exploring different… what sometimes have to be quite radically different ways of approaching it.

I: Okay.

R: And the way (unclear 00:12:50) buildings sometimes. You know, we talked a lot on this last (unclear 00:12:58) about time to think. Then creating time to think and getting more assertive with clients and contractors about the importance of that, because quite often in the commercial world backs into you finding solutions before you've really digested what the real problems are.

I: I mean, that's a design process conundrum in a way. That sort of where should you be in the problem space or the solution space. We're doing a project with NHS in the North East at the moment, and everyone wants to be in the solution space immediately. And we're having to put in a lot of resources and say, "Actually, you should be over here".

R: Yes.

I: It's a common problem.

R: Yes, I think it is.

I: Just going back to a word you mentioned a moment ago; this idea of things maybe needing to be radical.

R: Yes.

I: I just wondered what that meant in the context of collaborating with people, or bringing in new ideas. Are you saying that things need to be radically different from what's already here? Or - ?

R: I think we've still got a long way to go. I don't believe that design is a logically linear process. It's a kind of messy chaotic process if you kind of get it right.

I: Yes.

R: And so, it's finding ways of working that overcome that forced linearity. But it comes from the work that we work for different firms and different pressures –

I: Yes.

R: - and there isn't the one. It's getting that one focus and agenda, which is about a particular project that you're dealing with.

I: Yes. Going back to these interventions; so we've talked about what the motivations might be for engaging in that sort of activity. When you do these sort of things, and I'm aware that people aren't themselves. Sometimes it's broader, like The Big Academy. And after this, people in Australia I think were involved in one of the design review/design forum meetings on a competition. When that collaboration has taken place and there's some outcomes from it. It might be submitting a bid in a competition, or some internal training for people. Whatever it might be. How do you work out what the value of that has been? How do you validate it, I suppose? How does Ryder measure these collaborations if at all?

R: I think it's really difficult. I think there is a sort of feel good buzz that comes out of fixing it, right? And I think, I mean over time, I guess we measure the effectiveness and efficiency of the project. Because you'll do… for instance, if we force other consultants through work in a co-located team, you can find engineers and others who will say at the end of a few days doing that, saying we've achieved more in 48 hours than we would have achieved in three weeks.

So it's anecdotal in a way, you know, it's kind of… and it's kind of just common sense, that if you're working together to solve the same set of understood problems and issues, it's going to be a damned sight more efficient than doing it in individual compound.

But, because I suppose we haven't been doing it long enough in a co-located way.

I: Yes.

R: You don't have the evidence, but we do collect KPIs in terms of efficiency -

I: Okay.

R: - of the project. So in immediate terms, we can measure –

I: And does that include the number of hours spent by people and things like that?

R: Yes.

I: Okay. So efficiencies will be demonstrated over a period then?

R: Yes.

I: Okay.

R: Or not. [Laughter].

I: Or not, maybe. [Laughter]. Alright, to bring it back to I suppose my interventions with the organisation, what do you think, if anything has come out of those?

R: Well I think it's… I suppose, if I'm honest, I've found it a little bit difficult to get my head around this, because I think you use the model making as a means of changing thinking and exploring thinking.

I: Yes.

R: And I've got a feeling that that was… and I might be totally wrong about this, but that's probably easier when you're dealing with an organisation that's not design best. Because if you're working with a Company A or the NHS or whatever, you're sort of helping them think creatively the fact that their organisation [s.I figures 00:19:04].

I: Yes.

R: I think there's a danger that here, the model making thing could get confused with the model making that we do to develop and design our building.

I: Yes, that makes sense.

R: Is that fair?

I: Yes.

R: I think it's two different things, isn't it?

I: Yes, it is.

R: And that's sort of what I found a little bit difficult about it. But, I mean having said that, I think that almost there's a bit of osmosis goes on, isn't there. You know, if your interventions I think helped us to be focused on… it's just a shakeup, isn't it? Starting to think about, you know, 'are there different ways in which we can work, are there different ways in which we could do things?' And I think it also helped crystallise disparate sort of strengths. And actually, because this is a successful business, everybody is very busy. You get into a groove, we touched on this before, and you've actually got to make a serious effort to stop that tango and say, "Come on guys, we're actually going to do this –

I: Yes, something.

R: - we're going to try this differently now". We're not going to just slide into that setting, we're going to do it again. So you need things, sometimes external influence is helpful and you just say, "Oh hang on". You don't need to just go down this route.

Because so many of the consultants and architects I talk to sort of say things to me. "You're really brave to want to try and do things differently. It's hard, isn't it?" And you've got to take the view that; unless somebody starts to do things differently, what happens? Obviously you'll just be doing the same.

I: Yes.

R: [Laughter]. So I think it helps fit into the kind of evolving thought process.

I: Yes. I mean, one of the things… well firstly, you're right. It is more difficult because these types of interventions are a lot closer to your bread and butter than to Company A. I actually brought someone from Company A in to see some of the stuff here with Xxxxx's permission and Xxxxx came along, who is Xxxxx's equivalent at Company A. And her response was really interesting to seeing the things that people have made, and she said, "I think we would have done much more interesting things than those architects". And maybe they would have, but their parameters weren't anything to do with model making or buildings. They've got the whole Company A universe to think about in the context of that sort of thing, so that was kind of interesting.

But during when we were finishing off that intervention and talking about how this might be displayed, and then how it might be reported back to senior management, to yourselves, the leadership forum. Xxxxx was telling me that there were some other things going on within the organisation and one of them is this idea that you're going to invest in becoming a real material specialist, and that that was a real theme that was being pursued within the organisation.

And that led me to wonder whether sometimes these things need to coincide with other things. These external things in a way need to be timely, that they need to –

R: Yes. Well that's kind of what I was intimating; that it does need to be timely, otherwise your receptors aren't in the right place, are they?

I: Yes.

R: You could just disappear off into the ether. When it becomes, there's the spark that's kind of working a little bit. You've got (unclear 00:23:43), it just helps.

I: Yes, okay. Right, that's interesting. If we move onto the final third of the interview, which is the role of design within the organisation. We've already covered a bit of that. I wondered, the first question on that is; you've told me about collaboration, but I wondered as well as collaboration how Ryder finds out about the stuff it doesn't know. So, within this building and you've got some other offices as well, you've got a load of people with a load of thoughts in their head and experience. How do you find out the stuff that isn't collected within those heads in these

buildings? How do you find out the stuff as an organisation you just don't know? It might be about what the future might be or what we should be doing next. When the information isn't already in the organisation, how do you go about finding that?

R: Part of… well there's a number of different ways really. Obviously you're tapped into a much wider world on a day to day basis, whether that's suppliers, through manufacturers, builders, building consultants, whoever it might be. We're a part of that and obviously we're also tapped into what's happening in a wider architectural context and seeing what's happening around you.

We use the Ryder alliance to… really, the initial thinking around that was around developing best practice and sharing best practice and thoughts with other organisations that (unclear 00:25:35) world.

I: It's not even ones you do business with?

R: We started off… when we started off Alliance, it wasn't predominantly about doing business. Business follows and it follows like-minded people who had similar interests in wanting to pursue similar things. It's about getting on together really, and then that starts with best practice and starts with staff exchanges and that kind of stuff.

So the boys in Australia, for instance, who… it's been two years at least, no, three, and we're only just now talking about potentially a project that we might work on together.

I: Okay, so quite long periods of time.

R: And as part of the thinking that we've been doing recently in developing this group and this technology as a group within the organisation for instance, which is really the recognition that you need. Within the ethos of collaborative working, you need specialists. So, you know, I think… that seems counterintuitive in a way because if you're going to be the best you can be as an organisation, you can't just be a bunch of general architects.

I: Yes.

R: You need people who really specialise in it. So I think, what Xxxxx was talking to you about in terms of research and (unclear 00:27:16 to 00:27:17) is part of the ambition for the technologies. So, you know, on the one hand we're sort of developing those particular levels of expertise, and then trying to make sure that that doesn't become a totally separate thing, but that (unclear 00:27:38), if you like -

I: It's still kind of integrative.

R: - comes back to be integrated with the project team. So research is now… we're moving research much more central within the organisation.

I: Okay. Maybe to finish off because I'm conscious of time. Just to round off this point about design within the organisation. I'll hand this to you, Peter –

R: Is this Australian? I don't know.

I: It's the Danish design.

R: Oh, it's Danish. It's Danish.

I: Yes, which you'll probably have seen before. But, I show it to people, and especially organisations that aren't let's say architects practices.

R: Yes.

I: It's quite difficult to explain to people what design might be. A lot of people think well design might be the way that this cup looks, or the way our phones look and kind of limit it to that. And so I'm interested in your thoughts about where design and bits of design activity and process might sit within Ryder as an organisation. So where you use design, and I suppose the easiest example is you obviously use design process and knowledge to create the links for people to enable them to erect buildings and in a certain way and function in a certain way.

Most people will probably think that if I told them you're an architect practice. But I wondered where else you thought Ryder used it, whether design was used as a process at a senior management level in order to develop strategy and if so, how does that - ?

R: Design for me is problem solving and when Xxxxx and I took Ryder on in 1994, neither of us knew how to build a business or anything else. So I mean for me, the whole way in which we set it out, taking what I thought was a design exercise. [Laughter].

So it was kind of; how do you design the right organisation to work most effectively, and that has continued so that when we develop the business, the way we develop different teams, the way we've moved into different locations. The way that we've developed technologies. It's the same process as far as I'm concerned.

I: Yes.

R: You can't have everything.

I: And is everyone here involved in design within the organisation?

R: Yes, in different ways, but if you look at the life of a major building, we're back to the need for specialists. If you're designing houses, you might see them as relatively straight forward. If you're designing a major hospital or a big science building or whatever, it's a different deal. So everybody is involved in design, but their expertise really brings value at different stages. So some people are very good at initiating concepts, other people are very good at picking up a concept and developing it. Other people are very good at working with contractors, and other people are really good at doing the technology.

I: Okay. So they're a bit of the process.

R: So you try and make sure that you know what that team is going to be. Some people just do healthcare stuff, so you kind of know how that's going to unfold, and you try and make sure that all of those people are engaged at the beginning. Even though they recognise that they had a contribution there, but their real role kicks in later.

I: But they're there in the beginning though, still?

R: Yes.

I: Okay.

R: Well it's in a perfect world, but that's the way we try and set it up. So when we do initial design reviews or whatever, you want those people engaged continually. And you can work hard to create work that sort of says; the concept designer here isn't a superior being, it's just they've got a different skillset.

I: Okay.

R: And the trick is to get everybody to enjoy and appreciate the contributions that other people bring.

I: Yes.

R: That's the way in which you organise things around the collaborative approach. It's getting the right minds to play at the right time in an environment everybody feels free to make their voice heard.

I: Yes.

R: And that's where I'm more and more beginning to realise and focus on, that getting back to where those conversations started, is that you can't just assume that is going to happen. You actually need to let go, you actually need to encourage and facilitate.

I: Yes. I mean some of the things that I suppose have been striking for me in terms of even days like today is that, rather than being put in a special room, I've been allowed to just sit in the office for days on end. And I think that's meant that I have much more access because people just become familiar.

R: Yes.

I: So I don't wear a special hat that says researcher or consultant or anything like that on. And it's kind of, 'we're all in this together and mucking in, and it doesn't matter whether you're internal or external'. There seems to be a commonality.

R: I hope so, yes.

I: Well that's what my reflections are just as a working practice.

R: Yes.

I: As an outsider coming in. there's something in that, I think, in terms of how open people are and perhaps how accepted things are when you do things.

R: I think that's good. [Laughter].

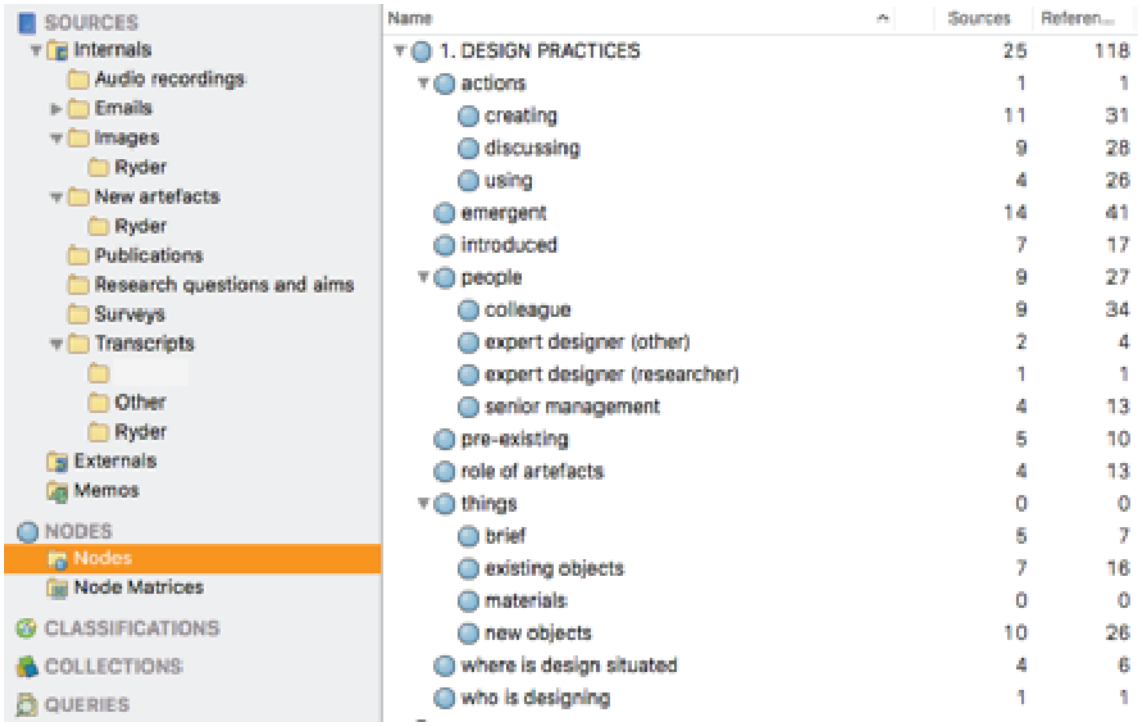
I: Yes, it's been very fun I have to say. But that probably brings this to an end actually, Peter, the interview.

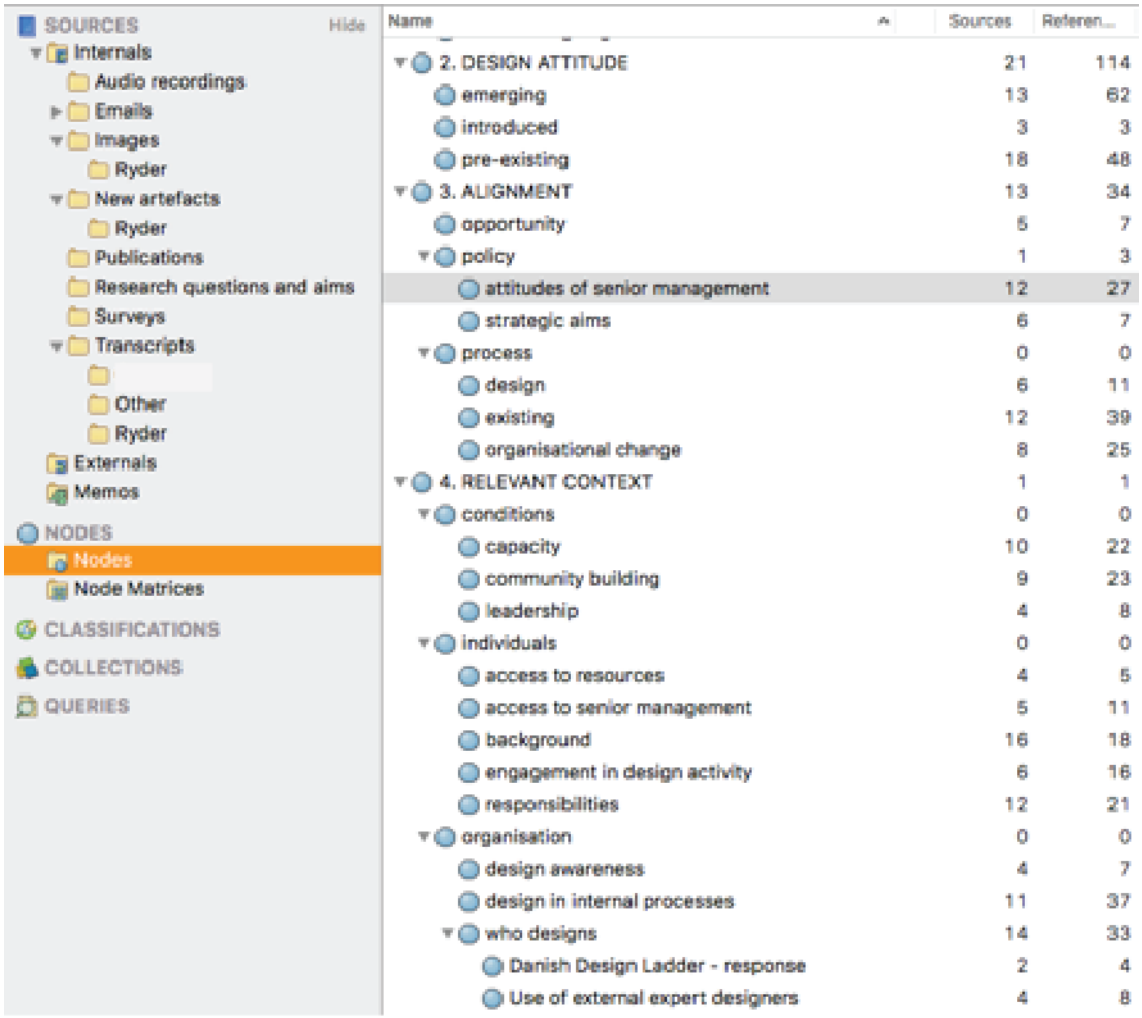
R: Okay.

I: That's great, I appreciate your time. It'll get transcribed. I will send you a copy of the transcript should I choose to use it. If there's anything commercial in there, or anything at all that you want taken out, you can just put a red line through it and send it back to me.

[End of Recording].

Appendix H: Nvivo thematic nodes





Appendix F

Appendix I: researcher's published papers

DISRUPTING SERVICE DESIGN

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Abstract

This paper describes a series of examples of disruptive design in practice, taking place in a service design context and observed as part of a wider case study. The subject of the case study was a large UK based manufacturer/retailer for-profit organisation and the disruptive design intervention was focused on the design of a new form of resource to replace an existing staff handbook, viewed by the organisation as a key part of its internal services to employees. These examples are given in relation to the attitude, process, methods and outcomes of a disruptive design approach. Our findings include the development of design knowledge amongst participants, the emergence of active designers and the potential value of unfinished artefacts. We conclude by considering whether these examples suggest opportunities for service design.

KEYWORDS: disruptive design, design activism, design knowledge, unfinished artefacts

Introduction

In this paper we suggest that adopting a disruptive design approach may offer opportunities to compliment the practice of service design.

A disruptive design approach involves an intention to disrupt people and their organisations through provocation and encouraging the making of artefacts. We do not present an exhaustive analysis of disruptive design; instead we have set out an overview of the background to disruptive design and then chosen a series of relatively clear examples of disruptive design in practice, taken from a recent case study involving the design of services. As we view our disruptive design practice, as designers and researchers, in terms of *attitude*, *process*, *methods* and *outcomes* we have given examples of each of these themes and the relevant findings. We conclude by considering what a disruptive design approach may offer to the practice of service design.

In suggesting a distinct vocabulary for a disruptive design approach we are mindful that some of the aims of our approach and many of the practices described in the case study will be familiar to service design practitioners and researchers. The disruptive design approach we describe shares some of the stated aims, in particular the intention to provoke, of established design movements such as speculative design and critical design. We take the view that these qualifications – *speculative*, *critical* and even *disruptive* – are unhelpful, and that what matters is the impact and, in our case, whether "you can find people to testify that they were provoked" (Tonkinwise, 2015). The idea that these are all essentially just forms of *design* applies equally to our practices and methods, and, as noted by Kimbell (2008), service design shares much common ground with other kinds of design practice and theory.

Background

A disruptive design approach comes from two distinct areas: firstly, the rejection of traditional design processes and, secondly, design activism.

Rejecting traditional design processes

Celaschi suggests that:

> *The discovery of disruption and the consequent decision to transgress as a rule takes place incidentally … via an intense journey, a formative event or an experience that opens up a door left ajar in the mind through which the discomfort of dissatisfaction with the everyday way of working had already begun to filter.* (Celaschi et al 2013)

In our case the *formative experience* has been the use of established linear design processes within both the design school and industry. These processes are typified by Ulrich and Eppinger's generic process (Figure 1) and also by, the currently fashionable, design thinking processes, of which d.school at Stanford University is an exemplar (Figure 2).

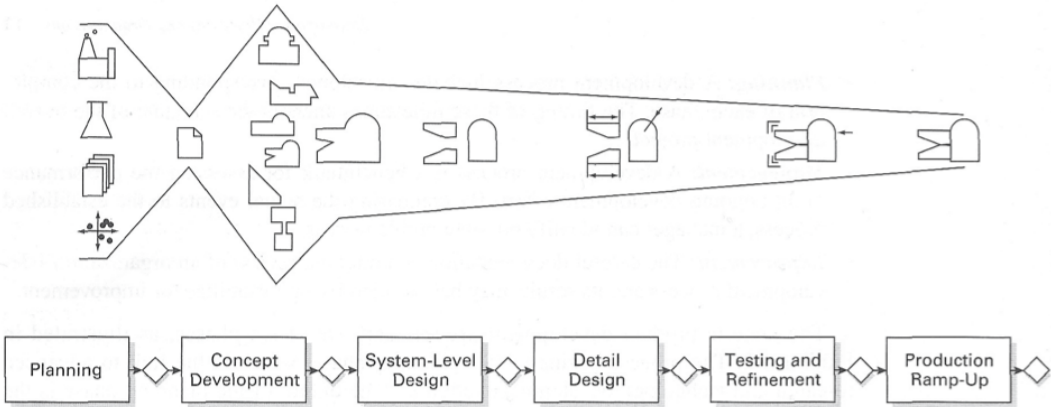

Figure 1: The generic development process (Ulrich & Eppinger, 2012)

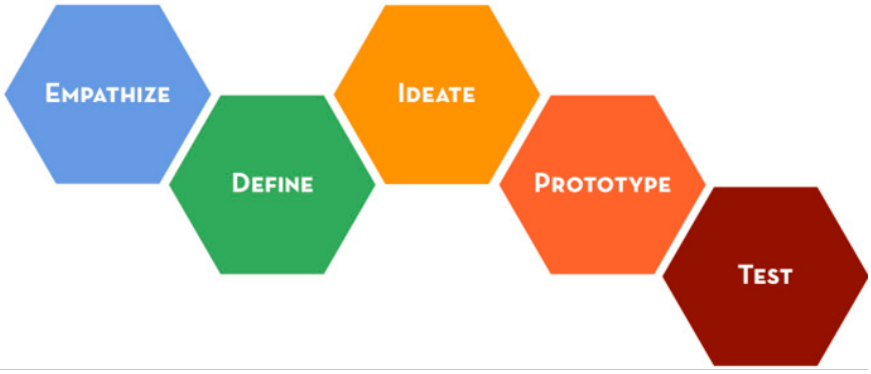

Figure 2. The design thinking process (Stanford University, 2015)

These established processes are undoubtedly valuable, however we feel they do not reflect the messy non-linear nature of actual design practice and research. In the context of the service design Stickdörn (2010) notes that "the proposed process is just a rough framework and should not be considered a prescriptive, linear how-to-guide" and that "the very first step of a service design process is to design the process itself".

Celaschi characterises such rejection as "disobedience", a "disavowal of methods" and "transgression" whilst Galli et al (2014) place importance upon "the violation of usual rules, trying disruptive actions, with unpredictable effects."

Galli's model of a disruptive design approach (Figure 3) shows disruptions and modifications to the decision process, which we have interpreted as being applicable to the decisions within each stage of the design process. Unfortunately Galli's model focuses on what a disruptive design process *is not* and does not go far enough to say what a disruptive design process *is*.

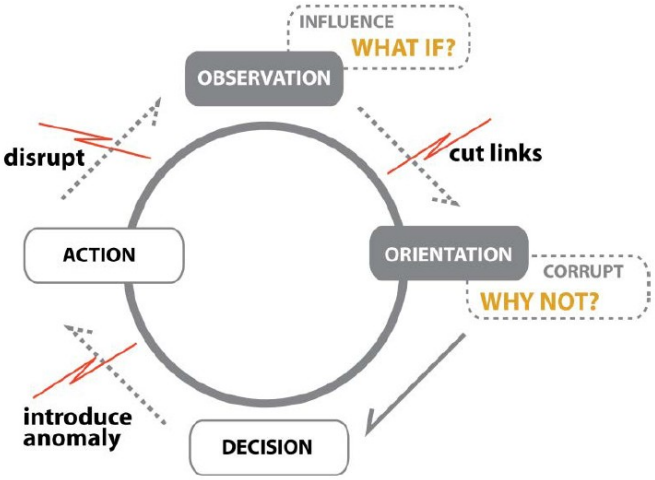

Figure 3. The decision process adapted to support a disruptive design approach (Galli et al., 2014)

Our other concern with Galli's model is that Galli sees the inspiration for this disruptive design approach as disruptive innovation, famously modelled by Christenson et al (2006) and something that can be learnt by designers from innovation specialists. This ignores significant design movements that suggest a disruptive design approach including the Situationalists and Debord's notion of dérive (Debord, 2006), the radical Italian architects such as Superstudio and design provocateurs such as Droog (de Rijk, 2010). These are all forms of design activism and we suggest that a disruptive design approach is another form of design activism.

Design activism

A comprehensive definition of design activism is offered by Faud-Luke:

> *design thinking, imagination and practice applied knowingly or unknowingly to create a counter-narrative aimed at generating positive social, institutional, environmental and/or economic change* (Faud-Luke, 2009)

In the context of our own practice this use of design to create a *counter narrative* is evident in methods such as encouraging participants to make protest posters, such as that shown in Figure 4. Indeed this materiality is an important element, both of design activism and our own practice, and we agree with Lenskjold et al's (2015) observation that "a material translation though some form of material incursion" is required.

We recognize the apparent conflict between the *social* aims of design activism and the for-profit aims of our case study. We suggest that design activism has moved on and now accords with Julier's argument that a form of "everyday" design activism exists (Julier 2013): focusing on making things better through utility, development, function and process, and working with economic systems, rather than simply being a method of protest. At the same time we accept the criticisms levelled by Markussen (2013) and Berglund (2013), and acknowledged by Kaygan and Julier (2013), that design activism will not be impactful if it is reduced to exhibition material or used to maintain the status quo. Our argument is that we are seeking to use disruptive design to provoke and challenge the status quo, in various contexts including the design of services, and that it is impactful.

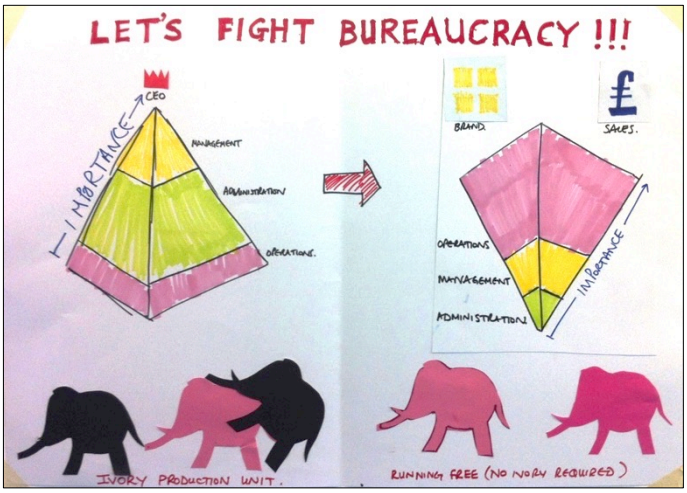

Figure 4. A protest poster made by participants during the case study

Case study

The examples of disruptive design in practice referred to below arose during a wider case study. During this research we followed a participant observation methodology where the principal researcher was a designer participating in the disruptive design interventions. This approach was both opportunistic and open ended and followed Jorgenson's model of fieldwork (Jorgensen, 1989). Research activities were observed using mixed methods and from a qualitative perspective.

The client organisation ("the client") operated in a UK manufacturing and retail sector worth £4 billion and which had grown by an estimated 8% in value between 2009 and 2014 (Mintel, 2014). In order to remain competitive within this marketplace the client had recently undergone a process of centralisation that involved moving away from regional management to a single central senior management function. At the time we were working with them, the client employed 20,000 people across the UK, spread between retail outlets and manufacturing plants.

In mid 2014 we facilitated a disruptive design workshop for a group of senior managers employed by the client. The brief was wide: to introduce the participants to disruptive design. One of the senior managers, Manager A, who took part in that workshop, belonged to the client's People team, or "human resources". Following the initial workshop Manager A introduced us to a colleague, Manager B, also from the People team, who had a service design problem. Manager B had been charged with creating a

new form of resource to replace an existing staff handbook. The resource would form the core reference material in the services provided by the People team to their internal customers, all 20,000 of them. The challenge was to create an authentic product that would become a catalyst for the design of new services. There was also dissatisfaction with the status quo with Manager B complaining that the client's iterative approach to the development of services led to more of the same thing.

Attitude

Our response to the problem was to suggest the staff handbook be reimagined as a travel guidebook, one that would suggest a series of journeys through the organisation as well as offering guidance as to how those journeys might be best enjoyed. These suggestions led to a proposal by us to the client that they make a large three-dimensional map constructed of physical representations of those very journeys. Rather than draft a lengthy proposal we gave the client a prototype model we had made using artefacts created in the earlier initial workshop (see Figure 5).

We told the client that our intention was to intervene in the established processes used by the organisation, in order to provoke debate and open minds to different ways of thinking and acting. We also told them that the outcome was unknown. The client's response to this pitch was a mixture of intrigue and frustration. We were told that senior management would not commission a project with entirely unknown outcomes and that for the purpose of their internal audience they would describe the project as simply "drafting a new staff handbook".

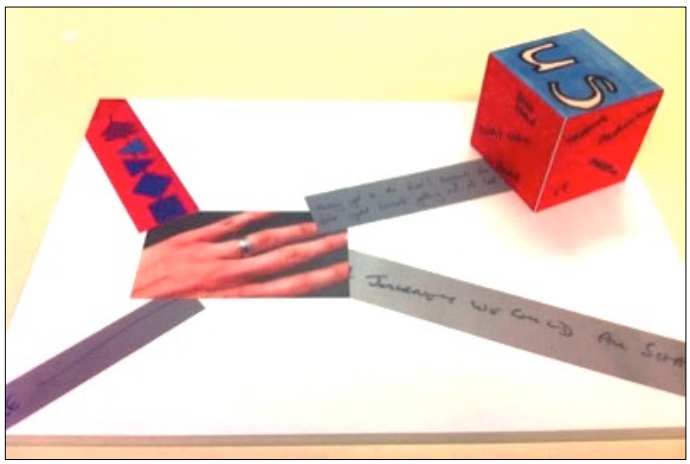

Figure 5. Prototype for a map-making intervention

Our reflections upon this early part of the case study were that as well as encouraging interaction with artefacts we were being intentionally provocative. This intention is identified by Galli (2014) as being a key feature in a "disruptive attitude" in designers and suggests it could take the form of corrupting the orientation of the project and of consciously steering the project towards a particular view. We suggest that this intention to provoke is important because it is the common ground shared by disruptive design and design activism.

Process

In the case study we told the client that we would instigate a three-stage process of *disrupt*, *understand* and *utilise*. The first stage, *disrupt*, was through the facilitation of a one day workshop where the participants were given a series of prompts to make artefacts

from a variety of craft materials. These artefacts included buildings, vehicles, roads, people and stories and were used to populate the map (see Figure 3).

The second stage, *understand*, was simply a suggestion to the client that they would have to make sense of the map possibly by displaying some of the artefacts in their offices. The third stage, *utilise*, was equally vague with the suggestion that the client should interpret the map when creating the new staff resource.

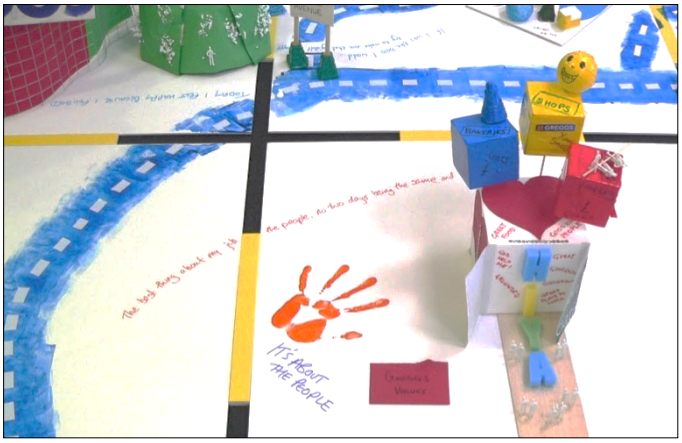

Figure 6. Artefacts made in the map-making workshop

On reflection we admit that our intended involvement consisted only of *provoke* and *make*: *provoke*, through the large but empty map we had made and the series of prompts we would deliver; and *make*, by inviting the participants to respond to the provocation by making artefacts. The other stages were simply blank spaces we had left for the client to explore. This approach was intentionally vague, incomplete and open ended.

Methods

A number of design methods were used during the map-making workshop that formed part of the case study. These all involved making artefacts, using craft materials, of different aspects of their collective organisational identity. The artefacts included text, sketches, painting and making three-dimensional models. In each case the participants were presented with a visual prompt, were given some contextual information by the facilitators, such as a reference to a relevant designer or artist, and were then asked to make an artefact in a prescribed period of time. Examples of these artefacts are shown in Figure 6.

Prior to the workshop we designed a small notebook that was given to each of the twelve participants one week before the workshop took place. The notebooks contained a series of informal prompts that related to possible journeys through the client organisation. The prompts took the form of a series of sentences, such as "when I leave I hope people remember me as …" The participants were instructed to complete the notebooks and bring them to the workshop. This was the only information given to them prior to the workshop. The notebooks resulted from our concerns that the initial act of making a mark on the map, which measured 15 square meters, would be daunting for the participants and would cause them to be inhibited. At the workshop we asked each of the participants to choose one piece of information from their own notebook and write it in a continuous line upon the map. We suggested that these marks were not particularly important but would form part of the background information of the map, in the way that actual map information such as contour lines does. There was initial reluctance from the participants until one by one they approached the map and began

to write (Figure 7). The participants then realised that they would need to work on their hands and knees, which resulted in several humorous conversations between them as they made way for each other.

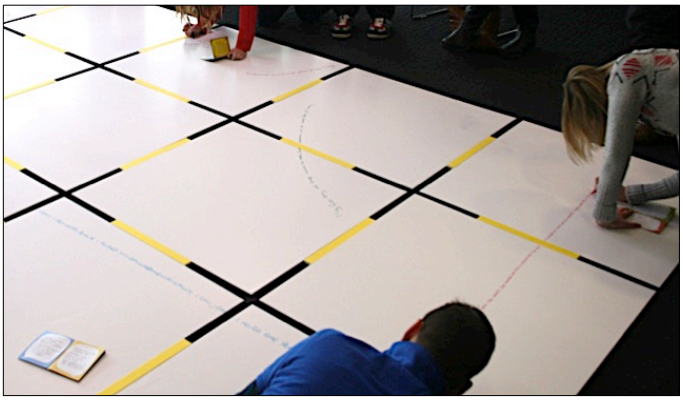

Figure 7. Participants making marks on the map using content from their notebooks

The workshop concluded with a short period (less than 10 minutes) of reflection upon the map and the artefacts that had been made and added to it. This period of reflection was unstructured and informal.

We do not suggest that there is anything novel in the methods used in this workshop or indeed in our wider practice. These methods are commonplace in service design practice and research, with the importance of visualisation (Segelstrom, 2009) and prototyping (Holmlid & Evenson, 2007) widely recognised as core activities. We are not attached to a single method and, in common with Celaschi's suggestion (Celaschi et al., 2013), prefer to experiment. However a common theme in our practice of disruptive design is making simple artefacts from craft materials or, as we have referred to above, a material incursion.

Outcomes

The outcomes of the disruptive design intervention that featured in the case study were wide-ranging and complex. These were recorded using first hand observation, video, surveys and interviews. We sought to record and understand people's thoughts, discourse and actions during and following the disruptive design intervention. We also sought to record and understand the artefacts that were made.

In terms of achieving the client's goals, a new staff resource was created by Manager B. This was created in paper and digital form and included text and images that were identified as having originated from artefacts on the map. When asked about its *authenticity*, Manager B told us "it's definitely more about what people think about being at [the organisation] … it doesn't feel like its just things the management want to say." This new staff resource could be viewed simply as a product whilst the service element - the delivery and use of the staff resource - continues to be developed by the client and will not be utilised until Spring 2016. We intend to evaluate the client's design of the entire service element through further interviews as part of our wider study.

In addition to the design of the new staff resource we suggest that taking a disruptive design approach caused a number of other outcomes, unforeseen by the client.

Following the map-making workshop Manager B invited us to install the map, complete with artefacts on the top floor of the client's head office. Manager B wanted other employees to make further artefacts and add them to the map. A co-design process followed between us and Manager B during which a number of issues were dealt with

including providing context for what had already been made, providing a similar experience to the new participants, how Manager B would facilitate these further making workshops, how information could be extracted from the map and how data could be recorded.

The workshops went ahead, facilitated by Manager B and other managers who had attended the original map-making workshop, and in total a further 65 people from across the organisation took part over three months. We subsequently interviewed Managers C and D, both of whom had been participants and then acted as facilitators for their own teams. In both cases we discovered that as well as acting as facilitators in relation to the map-making project they had gone on to use similar techniques for unconnected activities relating to their own roles within the organisation.

Figure 8. Artefacts from a manager's self initiated workshop

Manager C worked in a department responsible for delivering learning and development across the organisation. She told us that in a recent project she had used a model making activity similar to the map-making workshop to get a team of people to explore what the culture of a new team being created might look like. She had asked them to think about a journey and any blockages they might encounter. An example of some of the artefacts made is shown at Figure 8 above. When we asked Manager C why she had taken this approach she told us that she had "loved" the map-making workshop and felt that she had "a lot of freedom" to do what she wanted and so was able to do this.

Manager D worked in a regulatory role. He told us that, like Manager C, he had used a model making activity similar to the map-making workshop in a development meeting with his team. He told us how he had combined the model making with approaches he used regularly such as "reverse brainstorming." When we asked him why he had taken this approach he told us that he was one of a group of "mavericks" within the business and that he "could identify with the disruptive design principles."

Findings

We have made a number of findings in relation to the potential impact of disruptive design. Insofar as these findings relate to the examples of practice given here, they are

the development of design knowledge, the emergence of active designers and the potential value of unfinished artefacts.

Design knowledge

An early observation in the case study was that people participating in the interventions appeared to be learning from making. This proposition suggested to us that people might be learning through receiving instruction, experiencing the act of making and from reflecting upon the artefacts they had made. This conclusion is supported by Cross's model for design knowledge (Cross, 1999), in particular his suggestion of "a designerly way of knowing" residing in people, processes and products. In our case we have interpreted *products* as being the artefacts made.

We applied Cross' suggestion that this design knowledge or ability can be positively developed both by taking part in design activity and by receiving instruction in it to the case study and observed those types of activities taking place. We then used a survey at the end of each workshop to ask a range of questions designed to indicate whether people had developed design knowledge as a result of the activities. One of the questions asked people if those activities had made them "more confident about making things" on a scale of 1 to 10 (negative to positive) as an indicator of design knowledge being developed. Of the 12 participants from the original map-making workshop 11 gave a positive response (in the range of 6-10). However, when we asked the same question to the 65 participants in the workshops run by the client itself almost half of them (29 people) gave a negative response (in the range of 1-5). We subsequently found, through interviewing the participants, that these differences in people's perception of design knowledge being gained were due to the different amounts of time spent taking part in the activity (6 hours in the original map- making workshop compared to less than 1 hour in the later workshops) and, to a lesser extent, our absence from the later workshops.

Accordingly we suggest that the participants in the initial map-making workshop, which included Managers B, C and D, may have developed design knowledge. These initial findings will be evaluated further through interviews with the participants as part of a wider on-going study.

Emergence of active designers

Managers B, C and D were all independently, and without direction from the organisation, carrying out covert forms of design activity. None of them had a formal design education, their job descriptions did not include the word "design" and the activities they engaged in were not labelled by them or the wider organisation as "design". Accordingly we adopt Gorb and Dumas' argument (Gorb & Dumas, 1987) that they were practising a form of "silent design". The types of design activity they were practising were arguably within the "new roles" for designers described by Yee et al (2014). In particular, we suggest that Manager B fits the role of storyteller identified by Myerson (2007) whilst Managers B, C and D all displayed aspects of the roles of facilitator and co-creator identified by Inns (2007).

Unfinished processes

Insofar as our disruptive design approach can be viewed as a process it is an unfinished process. In limiting our interventions to *provoke* and *make* we are intentionally providing only part of, or the beginning of a design process. In seeking to understand why this approach might motivate people to go on and complete the process for themselves, by thinking and acting, and sometimes by making more artefacts, we suggest that it is helpful to consider our provocations as a series of artefacts that we had designed. In

the case study the artefacts that served to *provoke* included a large blank map, as shown in Figure 7, and a series of visual prompts, consisting of words and images including "buildings", "journeys" and "walking."

We have suggested above that viewed as a process *provoke* and then *make* are vague, incomplete, open ended and unfinished. We would also suggest that viewed as collections of artefacts the same descriptions apply and that they are all elements of ambiguity as described by Gaver et al (2003). Gaver deals directly with the issue of peoples' motivation to think and act when noting that "ambiguity of information impels people to question for themselves the truth of the situation." Gaver also suggests that "by thwarting easy interpretation, ambiguous situations require people to participate in making meaning." Accordingly we suggest that our unfinished approach, or process, may be what compels participants to engage in further design activity.

Unfinished objects

We have found that artefacts made by participants as part of a disruptive design approach, such as those pictured in Figures 4, 6 and 8 above, often have an unfinished quality which we attribute to them being made quickly from basic craft materials whilst at the same time seeking to challenge serious personal and/or organisational issues. Julier (2009) has noted a similar trend by design activists to create unfinished objects. When Julier put this to a group of sociologists Celia Lury suggested that unfinished objects should be understood as "an open-ended series or system" and that there may be value in "how an object might become, how it might evolve, how and with what (as well as who) it might connect, interact and so on."

We suggest that the unfinished quality of the artefacts is a further provocation – separate from the provocations caused directly by the disruptive designer and often continuing long after the designer has departed. Indeed Flood et al (2014) have recognised this provocative quality by characterising design activism artefacts as "disobedient objects." This is supported in a wider design context and indeed Boland et al (2008) note how the architect Frank Gehry uses the technique of making his early designs "purposefully crude and unfinished" and suggests that these unfinished models were "tools for thinking" rather than the "finished design."

A further example from the case study that supports this suggestion of unfinished artefacts as a source of provocation can be found in Manager B's actions. During one of the co-design meetings regarding the further map-making workshops at the client's head office we asked Manager B how she was going to approach writing up the information that came out of these further workshops. Manager B's response was to say: "I will be moving my desk up here when the time comes to write [the artefacts] up … I think I need to be near the map so that I can understand it, keep going back to it."

Conclusions and future work

We have sought to describe the practice of disruptive design in terms of attitude, process, methods and outcomes and to give relevant examples taken from a case study involving the design of services. At the heart of what we have described is an intention to disrupt people and their organisations through provocation and encouraging the making of artefacts. We suggest that these stages of *provoke* and *make* are catalysts for further activity in the form of *thoughts* and *actions* and that this suggestion is supported by the outcomes and findings we have described.

Whilst the aims of our approach and the practices undertaken in the case study may be familiar to service design practitioners and researchers, we suggest that adopting a

disruptive design approach may offer a different perspective to compliment existing service design methodologies. The opportunities this may offer can be summarised as:

» The methods required, of making simple artefacts from craft materials, are familiar and accessible for designers already practising service design.

» The emphasis on making artefacts may lead to the emergence of active designers within organisations.

» The artefacts, in the form of the provocations and the artefacts made are often unfinished and ambiguous and as such may act as a catalyst for self initiated design activity by the participants and their wider organisations.

» The outcomes are not entirely goal orientated and are likely to be unknown at the beginning and multiple at the end.

In terms of future work we intend to develop a framework for disruptive design practice, providing more detailed examples from case studies that will allow practitioners to use and evaluate our approach.

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